College and University Business

JULY 1953: How to Negotiate With Labor Unions ★ Accounting for Pooled Investments ★ Determining Maintenance Load by Time Study ★ Food Service Finance in Small College ★ Aid to Students

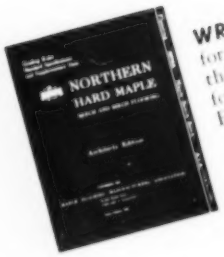
a money-saving MFMA "gymnasium" grade of

NORTHERN HARD MAPLE

"tailored from the tree"
especially to give you better average lengths, fewer end-joints, richer beauty, guaranteed soundness of wood.

the finest floor that grows

• Approved by architects and school authorities in leading cities for gymnasium floors, this fine (and relatively new) "combination grade," officially known as Second and Better, is fast becoming a favorite school specification. IT DESERVES THIS NEW POPULARITY. It matches **MFMA** First Grade in every performance attribute, yet costs less. Held to rigid **MFMA** standards of accuracy and of soundness of wood, it actually gives you 50% or better of First Grade, blended with the Second Grade areas in Nature's own colorful combinations of interesting grain patterns. Specify Second and Better, the ideal "gymnasium" grade, with fullest confidence. It makes a splendid floor of enduring beauty. YOU'LL SAVE MONEY WISELY.



WRITE for copy of this new AIA folder-style Flooring Textbook

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 551, Pure Oil Bldg., 35 East Wacker Drive
CHICAGO 1, ILLINOIS

See Sweet's
(Arch. 12K-MA)
or write for grading rules and new 1953 MFMA-approved list of floor finishes.

FLOOR WITH *NORTHERN* HARD MAPLE
BEECH AND BIRCH

Gulf States A.I.A.
Merit Award Winner

PAN-AMERICAN LIFE INSURANCE CO.
Office Building, New Orleans

SKIDMORE, OWINGS & MERRILL
CLAUDE E. HOOTON
architects

CARY R. GAMBLE ASSOCIATES
mechanical engineers

E. M. BARST CO.
plumbing contractor

CRANE COMPANY
plumbing wholesaler

GEORGE J. GLOVER CO., INC.
general contractor

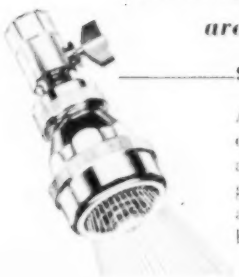
NEW ORLEANS TRADITION GOES MODERN

• The exterior of this award-winning office building presents a modern version of the New Orleans' traditional galleries and balconies. On all four limestone walls are horizontal canopies and vertical aluminum fins which create comfort and beauty by day and a striking light pattern by night. Above the ground floor there are no interior columns to obstruct the air-conditioned office areas, all of which are connected by a motor-driven conveyor that deposits mail and record trays at stations to which they are directed. On the upper floor of the low rear wing is a landscaped patio surrounded by a private dining room, employees' lounge and a huge room which, by means of accordion partitions, can provide cafeteria space, recreation room or large auditorium. Skilled architectural planning and product selections based on proved performance assures the owners of lasting satisfaction. In this fine building all Flush Valves bear the name **SLOAN**—more evidence of preference that explains why . . .

more **SLOAN** *Flush* **VALVES**

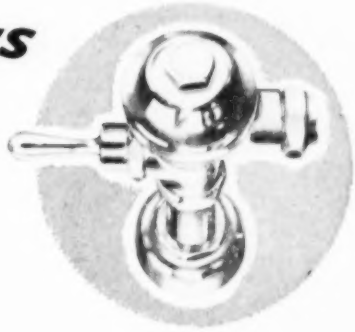
are sold than all other makes combined

SLOAN VALVE COMPANY • CHICAGO • ILLINOIS



Another achievement in efficiency, endurance and economy is the **SLOAN** *Act-O-Matic* **SHOWER HEAD**, which is automatically self-cleaning each time it is used! No clogging. No dripping. Architects specify, and Wholesalers and Master Plumbers recommend the *Act-O-Matic*—the better shower head for better bathing.

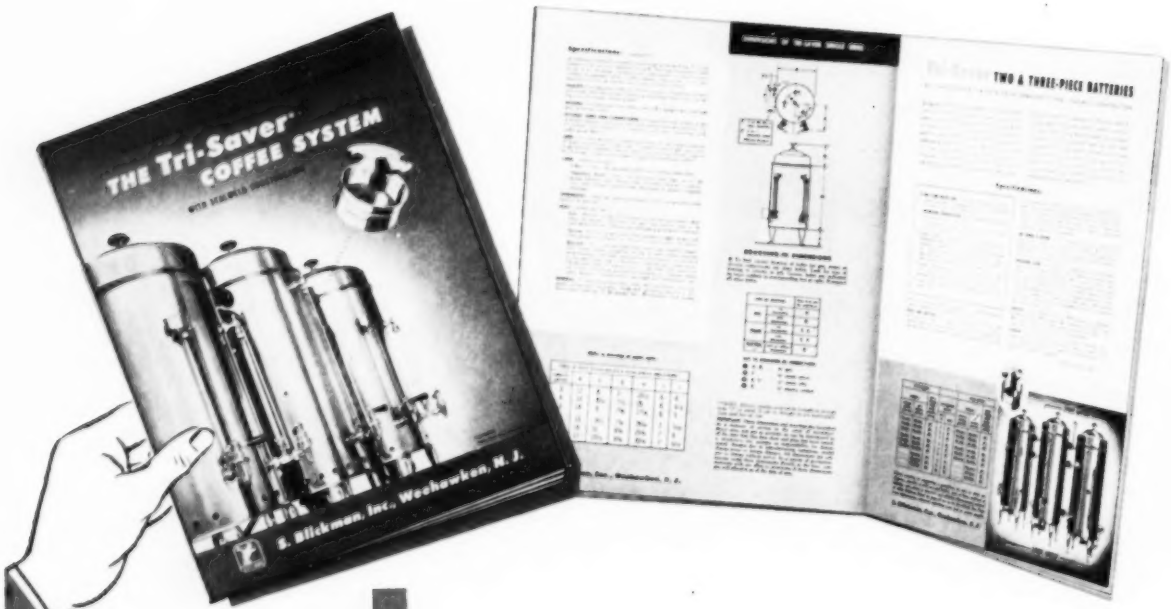
Write for completely descriptive folder



Here's Help for

SELECTING YOUR NEW COFFEE URN

valuable illustrated book gives you all the facts, specifications, dimensions



Shows how

- **Tri-Saver edge filtration yields a full-strength brew**
- **Sealweld construction protects seams against leaks**
- **Special features assure dependable service**

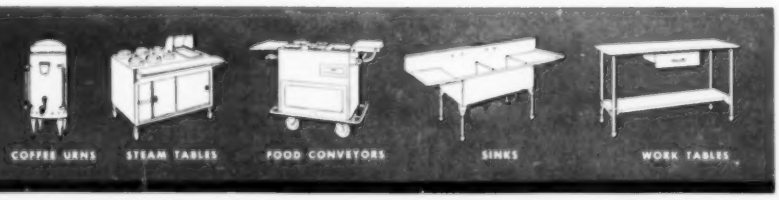
• Here is one of the most informative books on coffee-brewing equipment ever offered. Not a mere catalog – it gives the complete story of the unique Tri-Saver Coffee System, the new method of brewing perfect coffee *without urn bags or filter paper*. Construction features are clearly illustrated. You'll see how they assure you of years of reliable operation. All types of urns are shown. The book contains detailed specifications, dimensions and other information that will help you select the urn that best fits your requirements.

If you're interested in long service life, trouble-free coffee-making and a consistently delicious brew – "Tri-Saver" is the best investment you can make. Send for this valuable handbook now. Copies are limited. Kindly write on your letterhead.

LOOK FOR THE TRI-SAVER NAME-PLATE—YOUR PROTECTION AGAINST INFERIOR SUBSTITUTES

S. Blickman, Inc., 2807 Gregory Ave., Weehawken, N. J.

Blickman-Built
FOOD SERVICE EQUIPMENT
EST. 1889



College and University Business

EDITORIAL DIRECTOR
ROBERT M. CUNNINGHAM Jr.

EDITOR
HAROLD W. HERMAN

ASSISTANT EDITORS
MILDRED WHITCOMB
BEULAH H. TORSET

•

PUBLISHING DIRECTOR
J. W. CANNON Jr.

DIRECTOR MARKET RESEARCH
RUSSELL T. SANFORD

PRODUCTION MANAGER
LEO KEDROK

•

PUBLISHING AND EDITORIAL OFFICES
919 N. MICHIGAN AVE.
CHICAGO 11, ILL.
SU perior 7-6402

•

EASTERN OFFICE
101 PARK AVE.
NEW YORK 17, N.Y.
MU rray Hill 3-2445

•

CLEVELAND OFFICE
(Adv. Sales only)
1501 EUCLID AVE.
CLEVELAND 15, OHIO
SUperior 1-2452

•

WESTERN STATES REPRESENTATIVE
(Adv. Sales Only)
McDONALD-THOMPSON
LOS ANGELES, SAN FRANCISCO
SEATTLE, PORTLAND
DALLAS, DENVER

Published monthly by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc., 919 North Michigan, Chicago 11, Ill., U. S. A. Otho F. Ball, president; Raymond P. Sloan, vice president; Everett W. Jones, vice president; Stanley R. Clague, secretary; John P. McDermott, treasurer.

Copyright 1953, by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc.
Single copies, 50 cents. Acceptance under Section 34.64, P.L.&R., authorized. Published on the tenth of the month of the date of issue. Change of address should be sent thirty days in advance of publication date.

Vol. 15, No. 1, July 1953

JULY 1953

FEATURE ARTICLES

What Is Sponsored Research Doing to Our Educational Program? — 17
ARTHUR S. ADAMS

Reducing Friction Between Business Officer and Faculty — 19
ALBERT F. SCRIBNER

How to Negotiate With a Labor Union — 22
DONALD E. DICKASON

Accounting for Pooled Investments — 26
RALPH S. JOHNS

Magnetic Sound Film Has Many Classroom Uses — 29
PAUL R. WENDT

Financial Aid to Students — 31
MORTON RAUH

Inter-Faith Center at Cornell — 32
ELEANOR BILLMYER

Union Building at Michigan Tech Serves Dual Purpose — 36
FRANK HARWOOD

Do Faculty and Staff Members Have the Authority Financially to Obligate the College? — 41
T. E. BLACKWELL

Tax Status of Student-Staff Apartments Is Disputed — 42
LLOYD MOREY

Time Study Aids in Finding Fair and Adequate Load for Maintenance Personnel — 44
FRANK J. ZANFINO

Food Service Finance in the Small College — 47
AURICE HUGULEY

AMONG THE AUTHORS — 4
QUESTIONS AND ANSWERS — 6
LOOKING FORWARD — 18
NEWS OF THE MONTH — 52
NAMES IN THE NEWS — 66
DIRECTORY OF ASSOCIATIONS — 67
CLASSIFIED ADVERTISING — 68
WHAT'S NEW — 69

EDITORIAL BOARD

GENERAL ADMINISTRATION

RAY KETTLER — *Purdue University*
GEORGE BAUGHMAN — *University of Florida*
R. C. MAGRATH — *University of New Hampshire*

FINANCE AND ACCOUNTING

CLARENCE SCHEPS — *Tulane University*
EARLE WASHBURN — *New York University*

PERSONNEL AND OFFICE MANAGEMENT

LYMAN FLOOK — *University of Chicago*
H. R. PATTON — *Carnegie Institute of Technology*
CHARLES W. HOFF — *University of Omaha*

PURCHASING AND STORES

D. FRANCIS FINN — *Brown University*
D. R. KIMREY — *University of Oklahoma*
K. A. JACOBSON — *California Institute of Tech.*

DESIGN AND CONSTRUCTION

PHILIP KEENE — *Washington State College*
WINSTON CLOSE — *University of Minnesota*

PLANT OPERATION AND MAINTENANCE

WALTER KRAFT — *University of Oklahoma*
JOHN KREINHEDER — *Wellesley College*
PAUL ELLEMAN — *Ohio State College*

FEEDING AND HOUSING

EMERY FOSTER — *Michigan State College*
T. W. MINAH — *Duke University*
LOUISE CHENAULT — *University of Arkansas*

AUXILIARY ENTERPRISES AND RELATED ACTIVITIES

KURT HERTZFELD — *University of Rochester*
CARROLL RIKERT — *Middlebury College*

STUDENT ENTERPRISES AND SERVICES

VERN KRETSCHMER — *University of Illinois*
LUTHER FOSTER — *Tuskegee Institute*
WILLIAM WELLS — *University of Maine*

EDITORIAL CONSULTANTS

G. C. HENRICKSEN — *Duke University*
FRANK PETERSON — *University of Kentucky*
SAM BREWSTER — *Alabama Polytechnic Institute*
HILDA WATSON — *City College of San Francisco*
HENRY HERZOG — *George Washington University*
ALF BRANDIN — *Stanford University*
J. LEO SULLIVAN, S.J. — *College of Holy Cross*
LAURENCE LUNDEN — *University of Minnesota*

Among the Authors

Albert F. Scribner

ALBERT F. SCRIBNER, registrar and business manager of Valparaiso University, Valparaiso, Ind., has for many years concerned himself with the ways in which friction between faculty and administrator can be reduced. On page 19 he suggests factors that should be considered in improving faculty and administrator morale. Mr. Scribner first joined the university staff as registrar in 1925 and continued in that position exclusively until 1935, when he was named business manager. He has held both positions since that time. He is interested in administrative procedures and technics and has been responsible for the improvement of such features for colleges that are related to the Lutheran Church. Off duty, he grabs for his golf clubs or fishing tackle.

Ralph S. Johns

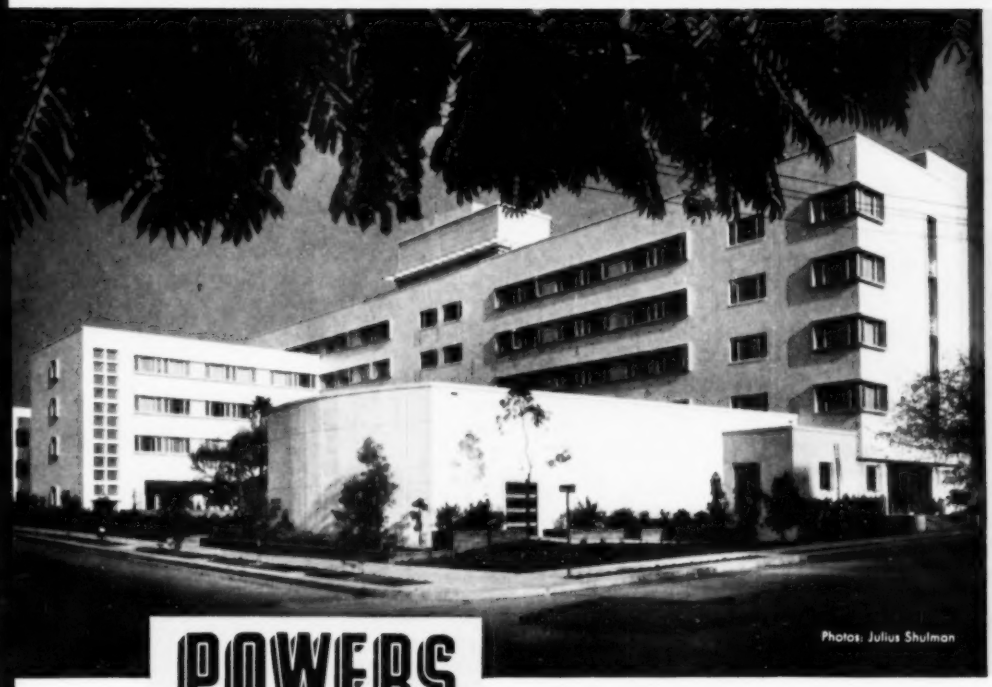
RALPH S. JOHNS, a member of the accounting firm of Haskins and Sells, outlines on page 26 the considerations that should be kept in mind in accounting for pooled investments of endowment funds. As chairman of the American Institute of Accountants' committee on college and university accounting, he was very active in the publication of Volume I of the "Manual on College Business Administration" that was published in 1952 by the American Council on Education. Such background and experience have been helpful in interpreting some of the accounting technics in higher education that differ from commercial accounting technics. Active in the field of accounting, Mr. Johns is past president of the New Jersey Society of Certified Public Accountants, a director of the Illinois Society of C.P.A., and a member of the council of the American Institute of Accountants. When it's hobby time, he enjoys photography; in earlier years he played quite a bit of tennis.

Frank M. Harwood

FRANK M. HARWOOD, manager of the Memorial Union building at Michigan College of Mining and Technology, Houghton, Mich., discusses architectural details of the new Union building on page 36. He first became a member of the college staff in 1948 when he arrived to take over food service operations of the Union. In 1951 he was named manager. Prior to World War II, Mr. Harwood had been an assistant chef in St. Petersburg, Fla., and during the war was a radar, communication and commissary officer with the navy.

Frank J. Zanfino

FRANK J. ZANFINO, business manager of Paterson State Teachers College, Paterson, N. J., points out on page 44 what he considers to be a fair and equitable load for building service and maintenance workers. Prior to his present appointment he had been bookstore manager of the college and for one year had served as accountant for a business firm in Little Falls, N.J. For relaxation he participates in sports and particularly enjoys baseball, hiking, camping and square dancing.



Photos: Julius Shulman

Architects
AUSTIN, FIELD & FRY

Mechanical Engineer
SAMUEL L. KAYE

Heating and Plumbing Contractor
SWAN PLUMBING SERVICE

All in Los Angeles, Cal.

POWERS

TEMPERATURE CONTROL

Left: Room Thermostats pneumatically operate control valves and dampers of heating system.

88 Thermostatic Water Mixers insure comfortable, safe showers, stop waste of hot and cold water.

(b17)

Selected for the Heating and Ventilating System and 88 Showers in this Outstanding College

One of the most notable schools designed to attract desirable students for a career in nursing is St. Vincent's $2,000,000 College in Los Angeles. Every possible modern facility for education, health, recreation and comfortable living has been provided. Quality of the mechanical equipment is on a par with the excellent design of the building.

Comfortable room temperature and fuel economy is assured by a Powers Pneumatic System of Control. For utmost comfort and safety each shower bath is regulated by a Powers Thermostatic Water Mixer.

When you want dependable low maintenance temperature control call Powers. No other firm has such a complete line of controls for heating, air conditioning and water temperature in all types of buildings.

Established in 1891 • **THE POWERS REGULATOR COMPANY** • SKOKIE, ILL. • Offices in Over 50 Cities

Questions and Answers

Farm Operations

Question: Is the present trend among schools and colleges that have operated a farm to produce milk and other food products to continue with such farm operation or to eliminate it? In other words, are more schools and colleges giving up their farms or including farm operation in their total picture?—H.M.B., Pa.

ANSWER No. 1: I have no statistics to support it, but I am under the impression that the present trend among schools and colleges is to discontinue operation of farms for production of milk or other food products. If the trend is not so I think it should be. Except for agricultural colleges and some institutions that find it economical and in conformity with their educational program to operate farms by student labor, I think colleges should confine their activities to educational pursuits and let the farmers do the farming.

It is true that farm operation has been profitable, or at least not unprofitable, during these years of price supports by a beneficent government. With the probability that such supports will be withdrawn, a college may be faced with an actual loss in the operation of a farm, especially when hired labor is involved.

College business officers have more than enough diverse duties to perform in support of the educational functions of the institution without being obliged to diffuse their energies in management of an entirely different kind of enterprise. At Carleton we farm more than 500 acres and have 200 registered Holstein cattle. This requires a farm manager and six men, and would require about half the business officer's time if three halves of his time were not already assigned to other responsibilities.—BRUCE POLLOCK, *business manager, Carleton College.*

ANSWER No. 2: As to what the present trend among schools and colleges is on farms in which they produce milk and other food products, I would hesitate to say without making a fairly careful survey of the whole situation. I would, however, be of the opinion that a goodly number of the schools are getting rid of their farm operations for the simple reason that Supplement U has resulted in the loss of the tax advantage. Too, since the integration of farm operations with the schools is only a minor part of the total farm operations, this advantage is gone and, with the high price of land, schools are selling out.

In cases in which the school farm's major output is being used by the dormitories, there is little likelihood of a farm's being disposed of. I know of no school where this has happened, although I do know of several that have sold out because of the loss of their tax advantage.

Many farm managers are of the opinion that the farm prices have hit their peak and are on the downgrade, and with land prices high they believe that it is to the schools' advantage to clear their farm operations. For example, we in this institution have sold everything except where the properties feed into our dormitories. Even here we have quit feeding products into dormitories in several cases where we can buy them cheaper and still sell on the market and make savings under present conditions. On the other hand, we have the potential of shifting back to the dormitory setup. This is especially true in the matter of meats, eggs and poultry.

As to the milk problem, all of our milk comes to the dormitories except during vacations, when we have an agreement with a processor who takes it off our hands.—D. J. HORNBERGER, *business manager, Ohio Wesleyan University.*

Report to Whom?

Question: Should a director of nonacademic personnel report to the chief business officer or the president? Why?—H.O.D., Mass.

ANSWER: The director of nonacademic personnel should report to the chief business officer. Nonacademic personnel is engaged in service duties. The chief business officer should be responsible for the management of all service units and therefore responsible for personnel in these departments.

The formulation of policies governing nonacademic personnel should be made at a high administrative level—perhaps by the president—but only in cooperation with the chief business officer, with the director of nonacademic personnel as technical adviser. —T. N. MCCLURE, *business manager, Knox College.*

Who Buys Foodstuffs?

Question: Should the purchasing agent or the food service director be responsible for purchase of foodstuffs?—L.R.K., Ohio.

ANSWER: The food service director should be responsible for the purchasing of foodstuffs. The purchasing agent can be helpful to the food service director, particularly in the purchases of canned goods and dry provisions. However, this should be conducted as a service only, and in no way as an administrative function, with authority for determining such things as quality and price.

The food service director should have direct supervision over all purchases of perishable items, such as meats, fruits, vegetables, dairy products, and frozen foods. This is necessary because of the constant price fluctuation and the fact that this purchasing must be closely synchronized with menu planning.

When a purchasing agent is used as a service to the food operation, the food service director should determine her needs over a period of time and draw up specifications in detail for each item needed. The purchasing agent then sends out requests for bids and asks to have samples sent, paid for by the university. The samples are turned over to the food service director, who makes the choice based upon predetermined policy.—THEODORE W. MINAH, *director, Duke University dining halls.*

A Fitting Memorial Now and for Years to Come

Benjamin M. Frankel Memorial Building, Champaign, Illinois

Architects: Harrison and Abromowitz, New York
General Contractors: Kuehne-Simmons Co., Champaign, Ill.
Plumbing Contractor: Reliable Plumbing & Heating Co., Champaign, Ill.

Generations of students on the University of Illinois campus at Champaign, Illinois, will enjoy the facilities offered by this new Hillel Foundation building which was designed and equipped with the future as well as the present in mind.

An example of this type of sound planning is reflected in the choice of Crane plumbing fixtures for the handsome one-story social hall. Plumbing fixtures were chosen for durability, ease of servicing, ease of maintenance and Crane quality—features that mean an investment in lasting service.

Crane fixtures you specify today, either for new buildings or for building renovations, will return dividends in low-cost performance for years to come. Let your architect and plumbing contractor know your preference for Crane.

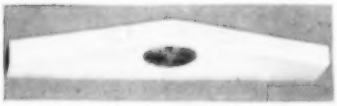
Partial view of one washroom in Frankel Memorial Building. Crane lavatories are wall-type Norwich model 1-150-S of gleaming, easy-to-clean vitreous china, with Crane's "Embassy" Dial-ese controls and indirect-lift waste fitting.

CRANE CO.

GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5
VALVES • FITTINGS • PIPE
PLUMBING AND HEATING

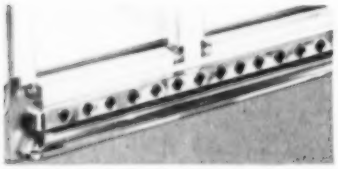
Your own Check List will prove

Frigidaire Reach-Ins are built for better service!

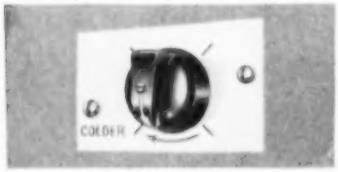


Exclusive "Flowing Cold" system provides safe, constant, even refrigeration.

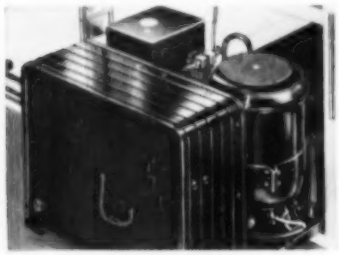
Super-Efficient Insulation – 3 inches of fibrous glass surrounds storage compartment.



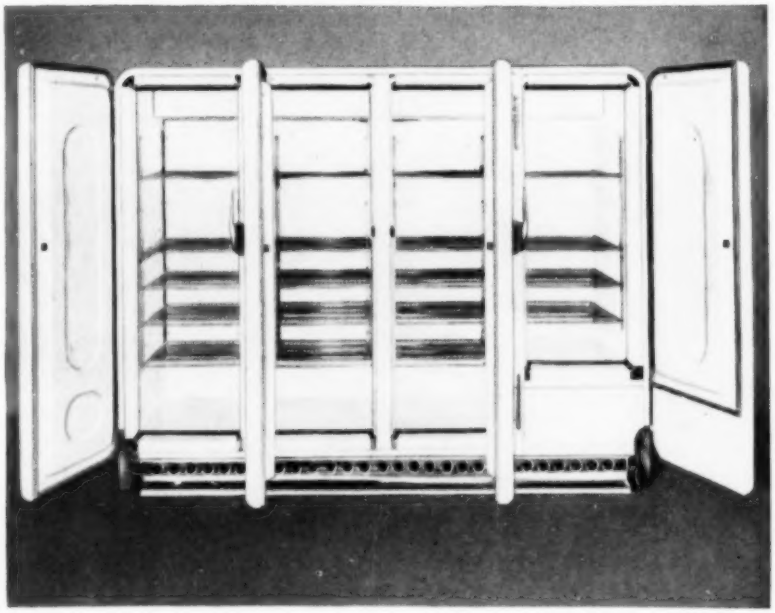
All-Steel Cabinet – no wood to deteriorate. Sturdy, welded construction.



Convenient Cold-Control to adjust refrigeration to desired temperature.



Meter-Miser Compressor warranted 5 years. Quiet, economical, trouble-free.



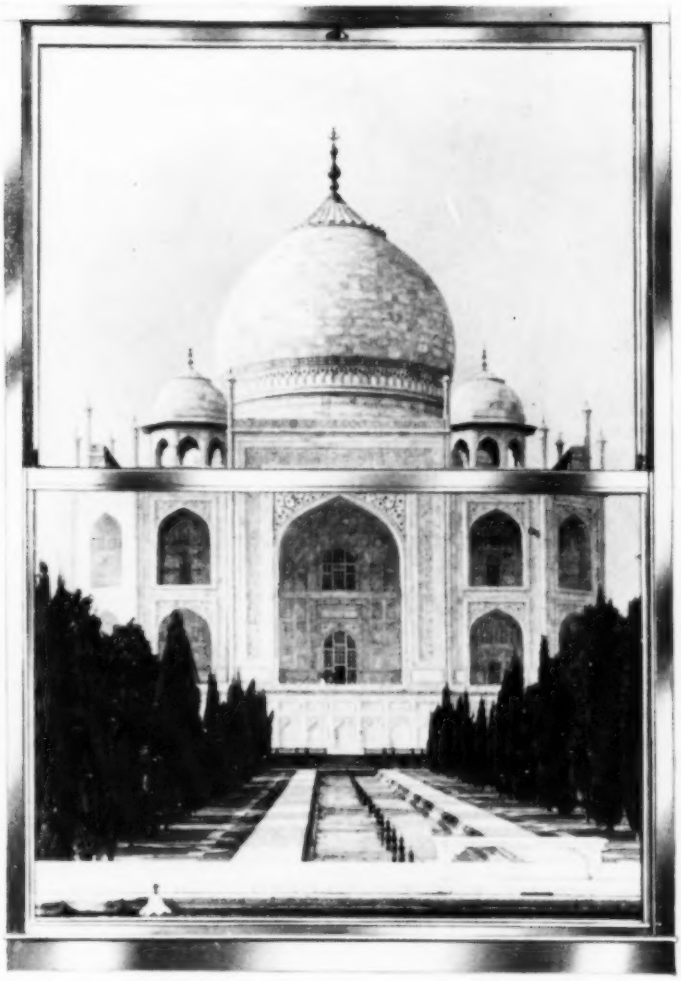
More Storage — more Cold Protection — more Convenience — *now at new low prices!*

Compare Frigidaire with any other Reach-In Refrigerator made . . . check off these sensational features and many more . . . and see why there is no better buy. Exclusive "Flowing Cold" bathes every inch of the roomy storage compartment in constant, uniform cold. Provides gentle, continuous circulation into every corner to cut shrinkage and spoilage. Holds down loss of cold air when doors are open. Lifetime Porcelain interior with acid-resisting porcelain on bottom. Shelves adjustable every ½ inch. 17, 27, 44, and 62 cu. ft. models. Most models available with glass doors. Designed from top to bottom inside and out to put more food at your finger tips for maximum accessibility in minimum floor space. Built to give years and years of dependable, thrifty food protection. Call your Frigidaire Dealer – his name is in the Yellow Pages of your phone book. Or write: Frigidaire, Dayton 1, Ohio. In Canada, Toronto 13, Ontario.

Frigidaire Reach-In Refrigerators

BUILT AND BACKED BY GENERAL MOTORS

The most complete line of air conditioning and refrigeration products in the industry



What?

Adlake windows in the Taj Mahal?

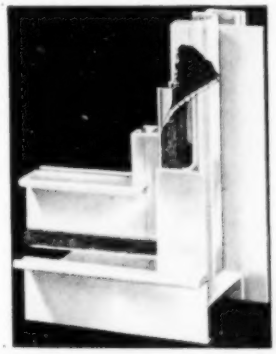
Unfortunately, Shah Jahan didn't have access to ADLAKE Aluminum Windows when he began the Taj in 1632...but we believe that, *had* ADLAKE Windows been installed, they would still be in perfect operating condition today!

...for, with no maintenance whatever,

Adlake Aluminum Windows will last longer than the building!

Every ADLAKE Window gives these "PLUS" features

- **Woven-pile Weather Stripping and Exclusive Patented Serrated Guides**
- **Minimum Air Infiltration**
- **Finger-tip Control**
- **No Painting or Maintenance**
- **No Warp, Rot, Rattle, Stick or Swell**



ADLAKE Windows pay for themselves by eliminating all maintenance costs except routine washing. Once installed, they'll keep their good looks and easy operation for the life of the building, with no painting, scraping or other maintenance whatever! What's more, their woven-pile weather stripping and patented serrated guides give an everlasting weather seal!

ADLAKE Aluminum Windows assure lifetime value, beauty and efficiency. Write for full details...you'll find ADLAKE representatives in most major cities.

Adlake 96th year

THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

Also Manufacturers of ADLAKE Mercury Relays and ADLAKE Equipment for the Transportation Industry

LIFTS DIRT FROM FLOORS... HOLDS IT OFF...

CINDET

100% ACTIVE 100% SAFE!

NEW LIQUID SYNTHETIC DETERGENT

Whether your water supply is HARD or SOFT, cleaning with CINDET means *no curds, no dingy film!* CINDET is *surface-active*—it works on the principle of LIFTING floor dirt, grease and old water-emulsion wax from floors and HOLDING it in suspension in a fluffy mass of energetically-cleaning SUDS. *Dirt is not re-deposited*—rinses off easily.

Dilute a little CINDET in HARD or SOFT water . . . apply with clean mop . . . let foamy, clean-looking suds stand 5 or 10 minutes . . . scrub only if necessary, and rinse thoroughly. The result: AMAZINGLY BRIGHT, CLEAN FLOORING.

Safe for *all* flooring—and wonderful for removing stubborn rubber marks. Also excellent for walls, for shampooing rugs and upholstery, for washing dishes by hand.

DOLGE backs up CINDET with a complete-satisfaction-or-deal-is-off GUARANTEE! Write for literature; have your DOLGE SERVICE MAN demonstrate CINDET on *your dirtiest, greasiest flooring.*

...THE SUDS DO THE WORK!

FOR FREE SANITARY SURVEY of your premises consult your DOLGE SERVICE MAN

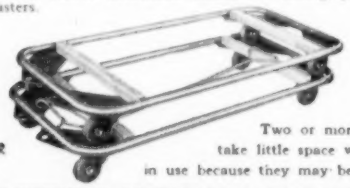
e-prodaiable DOLGE

WESTPORT, CONNECTICUT

Now STORE FOLDING TABLES with a BTC TABLE TRUCK

For the first time, you can store folding banquet tables quickly and easily with this new BTC Table Truck! The truck holds 12 or more oblong Hostess Tables . . simplifies your storage problems.

With this new BTC Truck, tables are stacked top to top to protect top surfaces in storage. The truck is 68" long by 32" wide . . has sturdy steel tubing frame, detachable handle for towing, plus four easy-rolling casters.

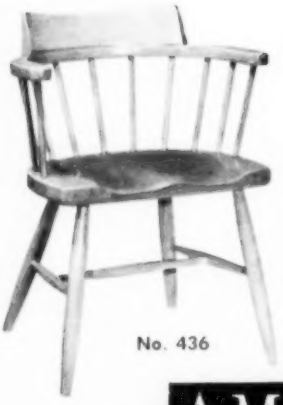


WRITE FOR FOLDER

Two or more trucks take little space when not in use because they may be stacked.

THE BREWER-TITCHENER CORPORATION, CORTLAND, N. Y.

durable *smart* FURNITURE



No. 436

CAPTAIN'S CHAIR

IN MODERN STYLING

Designed by Felix Augenfeld

Will add measurably to the utility and attractiveness of student lounge or recreation rooms.

Heavy, form-fitting scoop seat. Extremely comfortable and rugged.

For prices and complete information, see your dealer or write us.

AMERICAN CHAIR COMPANY

MANUFACTURERS

SHEBOYGAN, WISCONSIN

An Economical and Practical Answer to an Old and Costly Problem in College Upkeep

DESK TOPS

WORK SURFACES

CAFETERIA TABLES

Use G-E Textolite* Plastics Surfacing on desks and all work surfaces

Cut Down on Costly Repairs Now . . . Insure More Years of Maintenance-Free Service

- Immune to inks, paints, fruit juices, crayons, clay.
- Stain-free — easily cleaned with a damp cloth.
- Glare-free — germ proof — scuff and mar-proof.
- Moisture-proof, nonporous surface. No polishing necessary.
- Available in a wide range of beautiful patterns and colors, including wood grains.

Restore desk tops and other work surfaces with rugged G-E Textolite. Reclaim many years of economical use from college furniture by resurfacing damaged tops with this scuff and mar-proof material.

G-E Textolite plastics surfacing is made by the General Electric Company and distributed nationally by Roddiscraft warehouses. It is produced in a wide variety of colors, patterns and wood grains to suit a range of needs in class rooms, laboratories, cafeterias. G-E Textolite on all work surfaces will insure years of maintenance-free service in new installations, add years of useful life to old ones.

Investigate — call in a Roddiscraft representative from any of the warehouses listed below, or write for complete information.

*Reg. U.S. Pat. Off.

Roddiscraft

RODDIS PLYWOOD CORPORATION
Marshfield, Wisconsin

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. • Charlotte 6, N. C. • Chicago 32, Ill. Cincinnati 4, Ohio • Cleveland 4, Ohio • Detroit 14, Mich. Kansas City 3, Kan. • Los Angeles 58, Calif. • Louisville 10, Ky. Marshfield, Wis. • Miami 38, Fla. • Milwaukee 8, Wis. • New Hyde Park, L. I., N. Y. • New York 55, N. Y. • Port Newark 5, N. J. • Philadelphia 34, Pa. • St. Louis 16, Mo. • San Francisco 24, Calif. • San Leandro, Calif.

SPECIFY

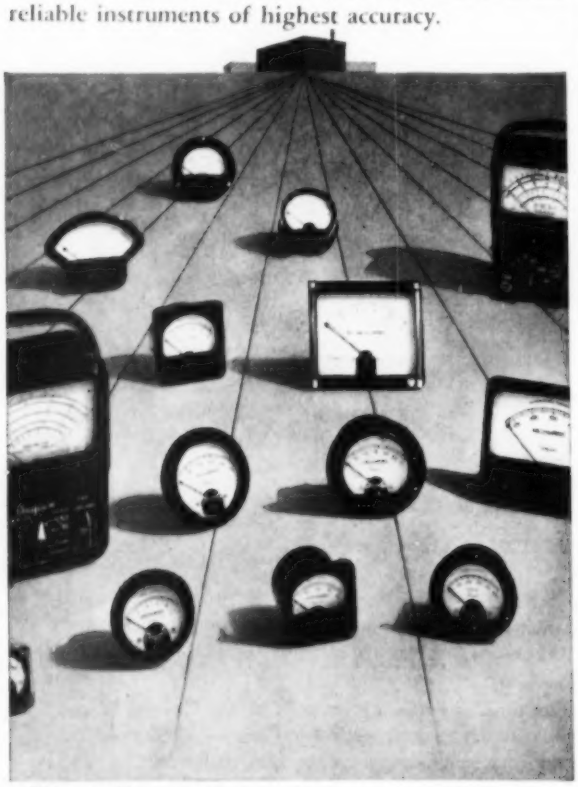
Simpson

for TOMORROW'S

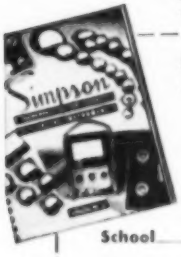
ELECTRICAL ENGINEERS

To provide your engineering students and faculty the very best electronic test equipment *specify* Simpson—*instruments that stay accurate!*

The World's Largest Makers of Electronic Test Equipment—Simpson is renowned among laboratory and field engineers for painstaking laboratory development effort and quality control that delivers reliable instruments of highest accuracy.



Mail Coupon **below for** *Free* **Simpson Catalog**



SIMPSON ELECTRIC COMPANY
5200 W. Kinzie, Chicago 44 • CO 1-1221

Please send me the Simpson catalog showing complete line of Simpson Electrical Instruments and Test Equipment.

Name _____

School _____

Address _____

City _____ Zone ____ State _____

STAINLESS STEEL REFRIGERATORS by HERRICK

Performance-Proved

at Chicago's

HOTEL CONRAD HILTON

HERRICK units were supplied by Duparquet, Inc., 225-235 N. Racine Ave., Chicago, Ill.

HERRICK Stainless Steel Refrigerators serve the Hilton's kitchens, coffee shops and cocktail lounges. Above is a HERRICK 20-door model used in the hotel's Banquet Kitchen. Wherever complete food and beverage conditioning is called for, HERRICK does a perfect job! HERRICK is unequaled for superb, low-cost-per-year performance. Write today for the name of nearest HERRICK supplier.

HERRICK REFRIGERATOR CO., WATERLOO, IOWA
DEPT. C, COMMERCIAL REFRIGERATION DIVISION

HERRICK *The Aristocrat of Refrigerators*

this sword means Cancer EDUCATION

Words of truth and hope from the American Cancer Society save many lives each year from cancer . . . could save thousands more.

Under the sign of the cancer sword you and your neighbors can learn vital facts . . . your physician can secure information on diagnosis and treatment. Cancer Strikes One in Five. Your Dollars Strike Back.

Mail Your Gift to "Cancer" Care of Your Local Postoffice

AMERICAN CANCER SOCIETY

....cut food cost by serving

"NABISCO INDIVIDUALS"

PREMIUM SALTINE CRACKERS

in handy moistureproof packets

You'll be cutting food costs by reducing waste when you serve PREMIUM SALTINE CRACKERS this new modern way.

- Each package contains the right-sized portion for the average serving.
- Fresher . . . no waste caused by staleness or sogginess . . . always fresh and oven crisp.
- Less breakage...no waste in handling unused loose crackers and bottom-of-the-box pieces.
- Easier to handle...saves time and assures faster service and more appetizing appearance.

OTHER FAMOUS "NABISCO INDIVIDUALS"

FOUNTAIN TREATS
less than 1 3/5¢
per serving

DANDY OYSTER CRACKERS
less than 2¢
per serving

RITZ CRACKERS
only 1¢
per serving

SEND FOR FREE SAMPLES AND NEW BOOKLET . . . packed with ideas on how to increase sales and cut food cost with NABISCO products including: *PREMIUM Saltine Crackers • DANDY OYSTER CRACKERS • FOUNTAIN TREATS • RITZ CRACKERS • OREO Creme Sandwich • TRISCUIT Wafers* ®

PRODUCTS OF

National Biscuit Co., Dept. 21, 449 W. 14th St., New York 14, N.Y.
Kindly send free samples and new booklet "America's Home Favorites"

Name

Organization

Address

City Zone State

NATIONAL BISCUIT COMPANY

The difference between Life... and Death...

"Why should you give blood? Ask me—I ought to know. I fought in Korea. But since then I've been through the biggest battle of all—the battle for life itself. And it was blood—and blood alone—that saved me. Don't know when I'll be in a position to start repaying my debt by giving some blood of my own. But I will—some day. You can count on it!"

All kinds of people give blood—for all kinds of reasons. But every reason for giving blood is a *special* reason . . . just as every American life that can be saved at any time and at any place . . . is special. So whatever *your* reason for giving blood, this you can be sure of: Whether it goes to a combat area, a local hospital, or for Civil Defense needs—this priceless, painless gift will some day save an American life!

Give Blood Now

CALL YOUR RED CROSS TODAY!

NATIONAL BLOOD PROGRAM

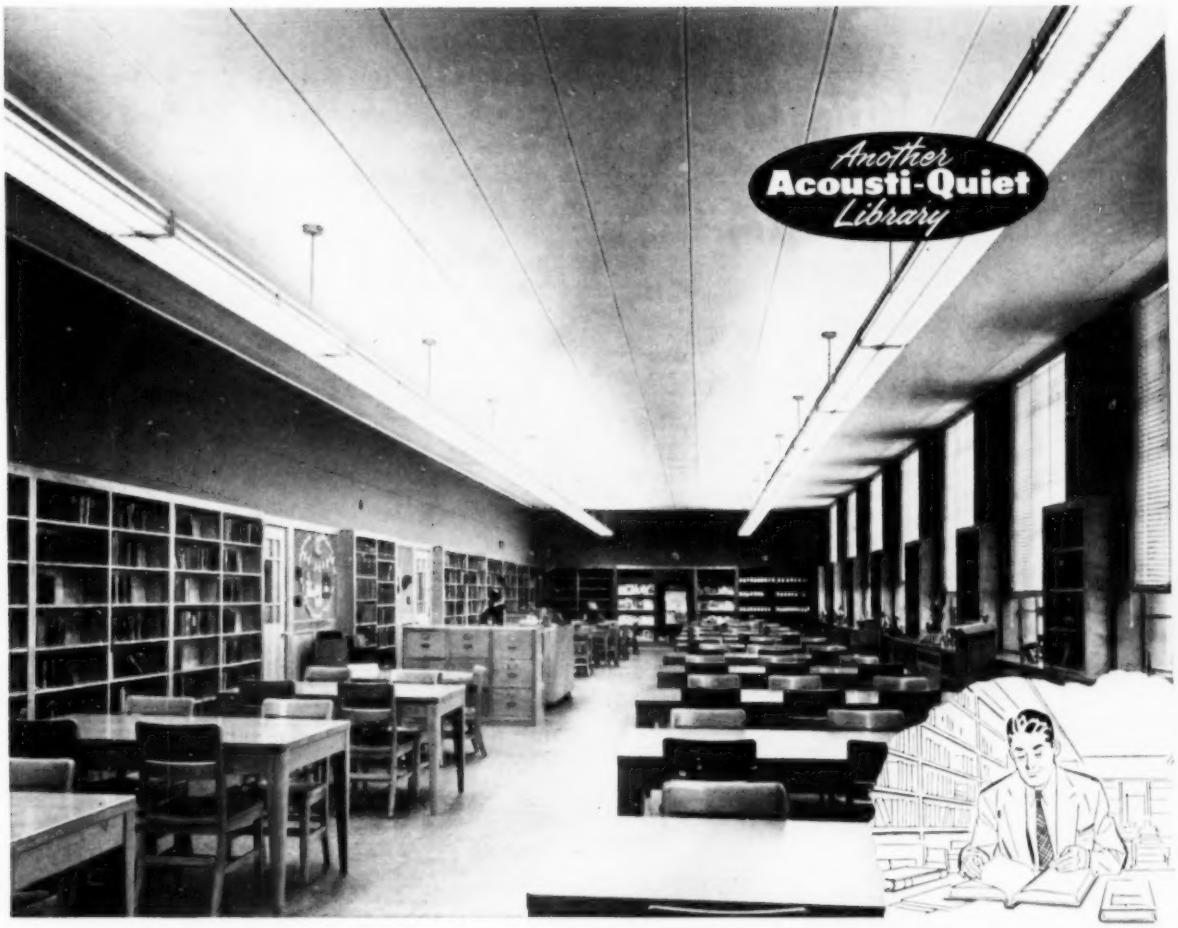
Business Executives!

✓Check These Questions!

If you can answer "yes" to most of them, you—and your company—are doing a needed job for the National Blood Program.

- ☐ Have you given your employees time off to make blood donations?
- ☐ Has your company given any recognition to donors?
- ☐ Do you have a Blood Donor Honor Roll in your company?
- ☐ Have you arranged to have a Bloodmobile make regular visits?
- ☐ Has your management endorsed the local Blood Donor Program?
- ☐ Have you informed employees of your company's plan of co-operation?
- ☐ Was this information given through Plant Bulletin or House Magazine?
- ☐ Have you conducted a Donor Pledge Campaign in your company?
- ☐ Have you set up a list of volunteers so that efficient plans can be made for scheduling donors?

Remember, as long as a *single* pint of blood may mean the difference between life and death for *any* American . . . the need for blood is *urgent!*



Here, even the ceiling says "QUIET"

In scores of college and university libraries, concentration is now easier, study more fruitful. Reason? Noise is being checked *before* it can echo and re-echo . . . *before* it can pile up into one distracting din . . . *before* it can disturb students and interrupt work!

Low-Cost Answer

A sound-absorbing ceiling of Acousti-Celotex Tile does the job. It "soaks up" noise, brings quiet comfort not only to libraries, but also to study halls, cafeterias, gyms and corridors. In classrooms, auditoriums and music rooms—it improves acoustics, makes better hearing easier for all.

Easy Maintenance

Acousti-Celotex Tile is quickly installed at moderate cost. Requires no special maintenance. Its remarkable *double-density* feature (see diagram) prevents warping—provides a surface of unusual beauty and washability. Can be washed *repeatedly* and painted *repeatedly* with no loss of sound-absorbing efficiency!

DOUBLE-DENSITY—As the diagram shows, Acousti-Celotex Tile has two densities. *High density* face, for a more attractive finish of superior washability, easy paintability. *Low density* through remainder of tile, for great sound-absorption value.

GET A FREE ANALYSIS of the noise and acoustical problems in your school without obligation. We will also send you free an informative booklet, "Sound Conditioning for Schools and Colleges." Mail coupon below today!

ACOUSTI-CELOTEX

TRADE MARK REGISTERED U. S. PAT. OFF.

Sound Conditioning

Products for Every Sound Conditioning Problem—The Celotex Corporation, 120 S. La Salle St. Chicago 3, Illinois • In Canada: Dominion Sound Equipments Ltd., Montreal, Quebec

Mail coupon today

The Celotex Corporation, Dept. T-73
120 S. LaSalle St., Chicago 3, Ill.

Without obligation, I would like . . .

☐ A free analysis of the noise and acoustical problems in my school.

☐ A free copy of your booklet, "Sound Conditioning for Schools and Colleges."

Name _____

Address _____

City _____ Zone ____ State _____

LUDMAN Auto-lok AUTOMATIC LOCKING PATENTED

SPECIAL SCHOOL WINDOWS

THE TREND IS TO AWNING WINDOWS

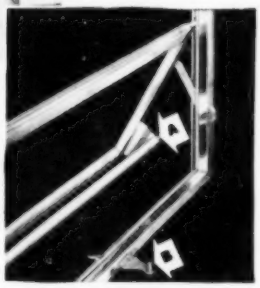
only give performance like this!

And what performance! Ludman Auto-Lok windows give you complete all-weather window ventilation control! They open widest . . . close tightest. They seal shut ten times tighter than generally accepted standards. Each vent *locks* automatically at *all four* corners when closed. They help air-conditioning and heating equipment to operate more efficiently. And equipped with the exclusive Ludman Control-Bar, Ludman windows are the simplest, safest, easiest of all school windows to operate! They are made to withstand the severest kind of classroom abuse and give a life-time of trouble-free performance!

HERE ARE JUST A FEW OF THE MANY SCHOOLS EQUIPPED WITH LUDMAN WINDOWS . . .

Booker High School
Sarasota, Fla.
Clarkstown Junior-Senior High
Clarkstown, N. Y.
Texas State University (Dormitory Group)
Houston, Texas
MacArthur Gymnasium
Beaumont, Texas
Oak View School
High Point, N. C.
Yonkers Junior-Senior High
Yonkers, N. Y.
University of California (Physical Education Bldg.)
Riverside, Calif.
Evansdale Elementary
Evansdale, Iowa
Wilson & Enslen Schools
Modesto, Calif.
Morrisonville School Addition
Morrisonville, Ill.
Ojus Elementary School Addition
Dade County, Fla.
Forsyth Grade School
Forsyth, Ill.
Consolidated High, District 4
Knappa, Ore.
Nashua School Addition
Nashua, Iowa
St. Mary's School & Convent
Rhinelander, Wisc.
Pleasant Valley Township
Bettendorf, Iowa
Herbert Hoover School
Mason City, Iowa
Glenwood Elementary
Ada, Okla.
Franklin Sherman School
McLean, Iowa
Dorsey Junior High
Miami, Fla.

Over the years it's the least expensive window to use. No maintenance required. Reduces heating costs. Write for descriptive catalog.



A: CONTROL-BAR
. . . Another Ludman First! It's the simplest, safest operating device ever designed! So little effort is required, even a child can operate it. No maintenance . . . no adjustment ever

B: SAFETY-LOCK
. . . an improved locking feature that securely locks the bottom vent

LUDMAN *Corporation*

Box 4541 Dept., CU-7, Miami, Florida

LUDMAN LEADS THE WORLD IN WINDOW ENGINEERING

GUEST EDITORIAL

What Is Sponsored Research Doing to Our Educational Program?

ARTHUR S. ADAMS
President
American Council on Education

ONE OF THE POWERFUL NEW INFLUENCES ON higher education in the last 20 years has been public recognition of the value of research. Millions of individual persons have become habitual contributors to campaigns for research, especially in the field of medicine; industry has increased its research expenditures manyfold, and the federal government is subsidizing research, particularly in science and engineering, at a rate undreamed of before World War II.

Since a considerable proportion of this new flood of financial support has been offered to colleges and universities, the impact upon many of them has been great. In some respects this impact has been disrupting, because strong emphasis has been placed on science, on projects promising quick and tangible results, and on programs of classified research for military purposes. Colleges and universities have traditionally and rightly attempted to extend the boundaries of knowledge in all areas, including the humanities and social sciences; to give primary attention to basic research, regardless of immediate application, and to maintain a free interchange of information concerning research results among the scholars and scientists of the world.

The necessities of national defense explain and excuse short-term departures from the traditional pattern. The problem facing American colleges and universities today, however, is how to meet a situation of partial mobilization that may last a generation. Important tasks gladly undertaken during World War II as vital to national defense may become serious burdens if extended for 10 or 20 years.

There has been controversy and wide variance in thinking on this problem both within government and within higher education. The 20 or more federal agencies sponsoring research in colleges and universities have nearly as many different polices. Similarly, various groups of educators, such as business officers, research workers, and college presidents, have expressed diverse views and recommended conflicting policies. The time has come when higher education faces an imperative need to present a united front in order to bring about consistent and constructive policies among all agencies sponsoring research.

The American Council on Education has had a committee on institutional research policy studying these matters since July 1952. Membership of the committee includes presidents of large and small institutions, vice presidents for research, business officers, and active research workers. All the major disciplines and geographical areas are represented. The committee's preliminary report, adopted in February 1953, is a tentative effort to reach agreement on principles and policies of broad application. All who are concerned in some way with sponsored research are urged to study this report with care and to send their considered judgments to the committee.

The suggestions made to colleges and universities by the committee may be summarized briefly as follows:

1. No educational institution should seek or accept classified military research unless it has special advantages of men, experience and facilities not available elsewhere.

2. Government research, if accepted, should be closely related to the normal program and recognized objectives of the institution.

3. Research contracts involving restrictions on publication of results should be undertaken only for emergency reasons.

4. The institution should maintain a proper balance between the work it undertakes for the government and its normal program in order to avoid diversion of scholars from basic research, diversion of interest and attention from teaching, concentration of effort on too narrow a field, *e.g.* the physical sciences, at the expense of the humanities and social sciences, and adoption of control and accounting procedures that impede creative work.

5. The institution should carefully determine the entire cost to it of sponsored research, and if it accepts contracts or grants that do not cover both direct and indirect costs, should do so with the full recognition that it is itself making financial contributions to such projects.

6. No institution should permit itself to become so dependent upon sponsored research that it will suffer serious damage if such support is withdrawn.

These recommendations have far-reaching implications. They represent a well considered approach to one of the grave problems facing higher education.

Looking Forward

Legitimate Complaint

ONE THING OVERLOOKED IN THE UNIFICATION OF the armed services is a unified system of accounting for military property on a college campus. Any college business officer with an R.O.T.C. unit on campus is acutely aware of this inconsistency. The navy consigns all its R.O.T.C. property, including uniforms, to the navy professor of naval science. The army and the air force, on the contrary, require institutions to appoint a military property custodian to receive and account for all government property, including uniforms, which they send to a college campus. This military property custodian is usually the college business officer.

The military property custodian is required to be bonded to guarantee payment for any military property that is lost by students or by members of the R.O.T.C staff. Accounting for military property must be done on the forms prescribed by and in the manner prescribed by the army and air force. Inventories are required on the forms provided by the services and detailed audits of the property are made by military auditors.

College business officers who are serving as military property custodians under the present system for army and air force R.O.T.C. units have a valid complaint. As one business officer remarked, "Under the present situation the professor of military science and tactics administers the military science program, but the university must appoint a nonmilitary administrative officer to assume full responsibility for custody and handling of government property used in the military science program. It is our opinion that sound administration requires the administrative officers in charge of instructional programs also to have administrative responsibility for equipment used in such programs."

This cardinal principle of sound administration is so logical that it is difficult to understand the present army and air force policy in regard to military property on a college campus. It tends to give validity to the cliche—"the right way, and the army way."

There is some hope for improvement, however. A bill (H.R. 2151) has been submitted in Congress that will rectify this situation. Among several items in the bill regarding R.O.T.C. programs is a provision for the army, air force and navy to assume responsibility for military property on a college campus.

Here's an opportunity for the Federation of College and University Business Officer Associations to assert real leadership in behalf of its constituents. On June 20, 1952, the federation did adopt a resolution recommending that R.O.T.C. personnel be responsible for military property. This resolution was forwarded to the Secretary of the Army and the Secretary of the Air Force at that time, but the painful fact is evident that the inequity still exists. It would be well for the federation to redouble its efforts to have Congress take favorable action on this legislation.

Economy Trend

FROM ALMOST EVERY STATE CAPITAL COMES A REPORT of decreased appropriations for state supported institutions. The time of easy money and record appropriations to state universities is being challenged rather generally throughout the country. This is apparently a reflection of the taxpayer's reaction against mounting taxes and a feeling that if economy is desirable in Washington it ought to be equally sound at the state level.

The state universities are facing a serious challenge in this regard. As tax supported institutions they face heavy pressure to provide facilities for children of taxpayers who desire higher education but who are showing increasing reluctance to pay for it.

On the part of college administrators this trend calls for a careful analysis of the educational enterprise to eliminate frills and extravagances that may have crept into the institution's operations over the years. More value for the dollar becomes an objective of the business officer as he strives for efficient use of staff and equipment.

A better job of interpreting the institution's needs to the taxpayers of the state has to be done. If the people are convinced they are getting a good return on their investment, the necessary funds will materialize. Indifference to the taxpayers' needs for certain kinds of higher education and a lack of concern for good institutional relations with the public will make for tough sledding in meetings with the appropriations committee of the legislature.

Anniversary

LIKE SOME WELL KNOWN BEVERAGES THAT IMPROVE with aging, it is our hope that readers have noted comparable improvement in the editorial content and service of COLLEGE AND UNIVERSITY BUSINESS. The July issue initiates the eighth year of the magazine, a year that we hope will set new standards of service to the administrators of higher education.

Chicago Board of Education Photograph

THE BUSINESS OFFICER SHOULD ATTEND GENERAL FACULTY MEETINGS

REDUCING FRICTION

between business officer and faculty

ALBERT F. SCRIBNER
Business Manager
Valparaiso University, Valparaiso, Ind.

SUCH FRICTION AS MAY EXIST BETween the faculty and the business office can be reduced but it will take more than soft words, wooing of teaching personnel, and theoretical plans.

Within the lifetime of some administrators now in service, the teaching faculty has been relieved of many of the administrative details connected with the admission of students, personnel work, counseling, collection of income, and disbursement of funds, only to be swamped with an avalanche of reports, red tape, and administrative hocus-pocus imposed on the teaching staff by the very individuals called to give administrative relief to the faculty.

It is necessary to add at the start that not all functions performed by administrative personnel are trivia. Much of the work of the administrator is necessary and must be done if a college or university is to operate in our present-day civilization. What I do want to emphasize, however, is the thought that perhaps administrators are more concerned with administration for its own sake rather than in finding ways and means of assisting and advancing the real work of the college, which is good teaching and research.

One of the first steps toward reducing friction between the faculty and the business office is to evaluate our office procedures in terms of the contribution they make to the educational program of the institution. This evaluation will be difficult because we shall be faced with discarding some practices considered essential but actually of questionable value. (You will know what to change and discard if you inventory your office functions.) You may want to compile an office manual and have it reviewed by a faculty friend of yours, wise in the ways of the academic world. If your study eliminates only a very small portion of clerical drudgery for the teaching staff, you will be on your way to reducing friction between the faculty and the business office.

Long years of educational preparation, often at considerable sacrifice, is a part of the life of the college teacher. Salarywise, the teacher accepts the fact that service to students and scholarly achievement do not always provide financial remuneration comparable to the incomes received in business and in the nonteaching professions. The administrator, including the chief business officer, must understand his col-

league when he fails to appreciate and accept the administrator into the academic hierarchy without question.

If the business officer desires the same recognition as his academic colleague, then he must acquire the same amount of educational training and also dedicate his life to the service of his institution in the same manner.

Lloyd W. Morey suggests this type of educational training as follows:

"Academic training is desirable in preparation for college business administration. One who aspires to responsibility in an educational institution should himself possess a college degree. While there is as yet no specific course of academic training, many areas of study, especially business, engineering, or law, are advantageous."[1]

Also, John Dale Russell points out the value of the business officer's having the proper educational outlook:

"The business officer must realize that the institution is operated for the benefit of the educational program, not for the sake of the business management. He must at times even be willing to sacrifice business interest to educational services. This is a characteristic that is difficult to find, particularly among men whose previous training and experience have been entirely along commercial lines."[2]

Almost all articles dealing with college administrators emphasize the need for these individuals to understand the educational objectives of their institutions. Just why the administrator seems to lack this important virtue, whereas his academic colleague appears more often to have the proper interpretation of the college's objectives, is not readily apparent. Institutional objectives, however well written in the college catalog, are not always clear and understood by the teaching staff and administrators. Some members of the teaching staff and of the administration spend their lifetime on a college campus without the remotest idea of what the institution is trying to do. Nonetheless, institutional objectives are important. The administrator who ignores them cannot give his best service to the faculty and students.

The question is often raised as to whether or not the administrator, especially the chief financial officer, should have academic rank, tenure and all of the privileges of such status. At many institutions academic rank is conferred on business officers. It is our impression that once such recognition is granted to the administrator, the relationship between the faculty and the chief financial officer is improved.

College presidents may be of much assistance to business officers in helping break the faculty-administration barrier by appointing their chief financial officer to committees of the faculty. It may seem strange, at first, for a business officer to participate in the work of a faculty committee on curriculum or a committee on athletics. It will, nevertheless, be beneficial to the college as well as to the business officer if participation is permitted. The chief financial officer will experience, in an intimate way, the manner in which educational policies are formed. Moreover, the business officer may make a direct contribution to the discussions in the matter of educational costs.

SHARE SOME PROBLEMS

The business officer who is denied the opportunity of attending general faculty meetings, meetings of the university senate, or the policy making body of his institution, loses one of the most effective opportunities to become acquainted with his academic colleagues. The business officer must know at firsthand what makes a faculty "tick" if he is to appreciate the problems of the teaching staff.

Some functions of the business office should be shared with the faculty. Only a few can be discussed in this article. Perhaps the preparation of the annual budget is foremost.

Although the president is responsible for the planning of the annual budget, the chief financial officer is closely associated with its development. The allocation of available funds for current operations will determine in a large measure the educational program of the institution. One of the most difficult tasks of the administrator, in periods of reduced income, is the distribution of funds to all areas without adversely disturbing the effectiveness of the educational program.

Our academic colleagues are responsible for the success of the educational program, and it seems reasonable that they should have an insight into the budgetary problems of the administration. It is for this reason that I can think of no better plan than for the president to ask the business officer to meet with a representative group of the faculty and review with it the total institutional budget.

The faculty group should be free to ask questions regarding anticipated income, appropriations for plant maintenance, the construction of new buildings, and the operation of auxiliary enterprises. An insight into the difficult problems associated with current operations may have a sobering effect on the teaching staff.

The faculty group may be expected to offer suggestions that could very well result in reducing operating deficits. Moreover, the business officer will have an opportunity to explain budget appropriations requested in administrative areas in terms of services to faculty and students.

It is possible that a budget discussion of this type would remove one of the major causes of friction between the faculty and the administration.

Can this approach to faculty-administration participation in budget making be successful? A recent article by Roscoe Cate, vice president and business manager of the University of Oklahoma, indicates that it can be done.[3]

As Mr. Cate's article declares, this democratic procedure is slower and requires infinite patience but the results seem to be well worth while.

Another area in which the business officer can reduce friction with the faculty is in the field of purchasing.

A system that imposes undue hardship on faculty members in obtaining minor supplies, such as mimeograph paper, typewriter ribbons, stencils and other similar materials, may cause friction between the staff members and the business office entirely out of proportion to the value of the supplies.

The greatest opportunity to be of real service to the teaching staff, however, lies in the purchasing of equipment. It is generally accepted that the business officer shall have the final decision on authorizing purchases; nevertheless, a business officer who insists on exercising this right in an arbitrary manner will soon find he has lost the confidence and respect of his academic colleagues.

A far better approach would be for the business office to process the re-

[1]Morey, Lloyd: College Business Management—Philosophy and Practice, Workshop in College Business Management, University of Omaha, Summer 1952, p. 17.

[2]The Finance of Higher Education, University of Chicago Bookstore, Chicago, 1944, p. 27.

[3]Cate, Roscoe: Faculty Participation in Budget Making, College and University Business, 13:22 (December) 1952.

quisitions in such manner that the faculty members feel that the business office has been of great assistance to them. An office library of up-to-date catalogs of suppliers and manufacturers should be made available to staff members and will save them precious time in getting factual information on their equipment needs. The willingness of the business officer to understand the specifications of the equipment desired and to transmit this information correctly to prospective suppliers is of prime importance.

The efficient purchasing agent may be called upon to perform many feats of magic in getting items quickly since some staff members invariably delay their requests until the last moment. In handling important and major equipment purchases the business officer or purchasing agent may point out ways in which funds can be saved when quotations of various makes of similar equipment are considered.

It is pertinent, I think, to assume at the beginning that the faculty member knows his field of teaching much better than the business officer and is the best judge of the type of equipment needed. If this assumption is correct, then the way is open for a joint decision between the staff member and the purchasing agent on the best manner of supplying the department with the equipment needed to do an effective job of teaching.

In a large number of institutions, especially the smaller colleges, the business officer is responsible for the maintenance of the physical plant. The attitude of the maintenance staff to the teaching faculty frequently causes friction. Sooner or later, the business officer must tell these maintenance workers that their chief function is to maintain the plant in such manner that the faculty can teach under reasonably good conditions. In these times of shrinking budgets it may be difficult to employ capable maintenance personnel. This makes it all the more imperative that these workers be carefully instructed as to their rôle in the educational program.

CAUSES OF FRICTION

Untidy classrooms, burned-out light bulbs, blackboards cleaned only occasionally, chalk troughs so full that clothes are soiled every time an instructor uses the blackboard, dirty rest rooms, failure to fill paper towel containers—all these things contribute to friction between faculty and the business office.

We may not have money enough to spend on painting and decorating or building improvements, but there is no excuse for uncleanliness in any college. The key to obtaining best results in this area may be through joint conferences among heads of departments, deans of the colleges, the superintendent of buildings and grounds, and the business officer. Once members of the instructional staff understand that curtailment of maintenance services has been necessary in order to provide funds for the educational program, they can be expected to be sympathetic to the conditions under which the institution's maintenance staff has to operate.

Finally, a word must be said about the clerical staff in administrative offices. Usually these assistants are courteous and try in every way to be of real service to the teaching staff. On the other hand, the statement of Dean Keeney[4] of Brown University concerning the "arrogant and ignorant" type of administrative assistant is all too often true. Certainly, there is no place at any college for such individuals, whether teachers or clerical workers. The business officer will want to place his best trained assistant in direct contact with the teaching staff.

We like to think of the relationship between the business staff and the faculty as expressed by Archibald MacIntosh.

"Teaching is the primary business of the college. Everything else we do revolves around teaching as a center. Swamped with students, we are prone to let the machinery of handling numbers deflect our attention from our basic purpose. The administration exists to prevent the burden of organization and routine from falling on the faculty. It exists to free the faculty. Yet administrators can be teachers too. They may in fact do some classroom work, but even if they do not they have an opportunity in their constant contact with the students to teach some things which cannot be taught in the classroom. The realization that they can be liberators of the faculty and at the same time colleagues would go far toward breaking down the traditional faculty-administration barrier. Upon their union in a common purpose depends the strength of the institution and the future of the students."[5]

The reader of this article has the right to inquire of me if at my institution all of these problems have been successfully solved. The answer is No.

Many years have been spent exploring ways and means to reduce the friction between teaching staff and business office. Some procedures have been successful, others have been used and discarded, but we keep on trying with an everlasting faith that our efforts are repaid a thousand times if one professor has been kind enough to say, "You have helped me in my work. Thank you."

Up-to-date catalogs of suppliers and manufacturers should be made available to the faculty members by the business officer.

[4]Keeney, Dean: Faculty and Business Officers, College and University Business, 14: 21 (January) 1953.

[5]MacIntosh, Archibald: Behind the Academic Curtain, Harper and Brothers, New York, 1948, pp. 140, 141.

Greet the members of your staff on the bargaining committee as fellow members of the same institutional family. Keep the whole introductory period friendly.

HOW TO NEGOTIATE WITH A LABOR UNION

DONALD E. DICKASON
Director, Nonacademic Personnel
University of Illinois

"As business agent of Local 123 of the Amalgamated Association of Hewers of Wood, Drawers of Water, and Operators of Typewriters and Other Office Equipment, I now represent your nonacademic employes. From now on you will have to deal with me in all matters relating to their wages, hours and working conditions. We want some changes right now, and here is a list on which you can start."

That, a little overemphasized and possibly—though not certainly—more bluntly put than in real life, is what could be said some day to almost any college business officer not already dealing with a recognized union.

If it were said to you, what would be your answer and how would you face up to the new problems involved? The outline that follows is only an outline, for many books have not said it all. It is worth a serious glance, however, and a place in your permanent files for use if and when you are on the receiving end of a request to become a party to a union negotiation. It might even be worth checking against present operations if you are already in the business.

Now, *please*, unions are not *all* bad. To the contrary, they have many good points, especially if they have good leadership, which some have and some woefully need. In an editorial in the December 1948 issue of College and University Business, I wrote:

"Now a lot of us have unions on our campuses, and they have arrived with a rush that has been not a little embarrassing to most of us. We have been annoyed by the tactics of union organizers; we have been disturbed by lessening respect for supervisory authority, and we have been hurt by the realization that our employes have turned elsewhere for the guidance we have felt we should give.

"Yet most of us have come to a basis of adjustment. We have found that a union can be used as well as opposed. We have found that its members are still our own employes and that its leaders can help solve problems as well as stir them up. We have found a growing sense of responsibility within the union organization. But we have also found that we are being watched — and checked — and challenged. We work out an agreement, and we live up to its terms. We see to it that every individual employe gets his full and just rights. We do not permit personality differences to affect working conditions. We give to our employes accurately and in full the same benefits and privileges they would get in similar work outside of our campuses. We do all these things, or else!

"We do not give away our rights, but we observe those of our employes meticulously. We lean over backward to ensure fairness and justice. We behave in the way any upright and just and enlightened employer ought to behave, because if we don't we are certainly going to have trouble."

That's still quite true, but it emphasizes the absolute necessity for knowing the rules of the game and the tactics and strategy, as well. And don't take the attitude that you have a right to be let alone. Thousands of other employers have had to face this and it is part of management's burden these days.

So back to our imaginary (we hope) union representative and what we're to do about him and his demands.

1. *Be sure of the union's right to represent and to bargain.* Depending on their form of organization, some institutions are bound by the terms of national labor regulations; some are not. For all practical purposes, however, the same principles apply to all, whether public or private. First and foremost, be sure the union actually

Conduct the bargaining session yourself; assume your right to chairmanship. Have representatives of department management with you in the negotiation sessions. Always let the union make the first presentation.

represents your employes. *Never* assume this. *Always* demand (you have a right to use that word, too!) a secret ballot election. This may be under the National Labor Relations Board if you are covered by federal regulations or, on mutual agreement, by some other agency, such as the state department of labor. If the union polls more than 50 per cent of the votes, you deal; if not, then you don't.

And see to it that employes are properly grouped. Just because most of your 50 janitors want union representation doesn't mean that you should include a smaller number of drivers or storekeepers in the election unit, thereby setting up a condition under which they, possibly wanting no union, could be brought in against their wishes because of the heavy janitor vote. *Always* ask the union what employe classes it claims to represent, then insist that the voting be broken into natural work groups.

2. *Prepare yourself carefully before you negotiate.* We'll assume that you have had your election and that the union has proved its right to speak for a group of your employes. What comes next? Promptly—or even suddenly—you'll be asked to sit down and work out an agreement. At least, that is what you *should* do, though the union will probably start by telling you what it expects you to agree to. But now is the time to remember that collective bargaining does imply give-and-take, and not all of giving or of taking on either side.

The union will want more than you have been giving, but you don't have to agree to everything the union wants. You do have to discuss it, however, in sufficient detail to show good faith. Maybe you *should* give more, but not just because the union asks you to. So, first of all, get some facts before you sit down—rates now paid, hours now worked, benefits now given, prevailing community pattern and practice. And don't gloss over any internal inconsistencies now existing. If they are there, the union knows all about them and you had better know why and what should be done about the situation.

REMAIN CALM

Don't get excited or angry as you sit down for your first session. This is old stuff to your union representative, and you should treat it as you would any other negotiation, such as, for example, a contract for purchases or for construction.

Be sure you have talked this over with the heads of the operating departments where the union membership works and have representatives of departmental supervision present in the negotiations. Take the position that *you* are really helping carry on negotiation between the employes and the employing departments, within a general pattern applicable to your whole institution.

Plan your steps — remember that this is, in fact, usually real, old-fashioned bargaining. Figure out how much concession you will want to offer at first as compared to how much you may be willing to give in the final agreement, with the idea of holding something back for later use. But, on the other hand, figure pretty closely just where you are going to have to dig in and say, "This is the end of the line—that's all we can do," and how much conviction you can make that statement carry.

Try to anticipate reactions of the other side, what the employes really want and think they are actually entitled to, and what the union will think it has to get to keep this dues paying membership satisfied with the union's job of representation. Decide whether you need any help—outside assistance with skill or experience in labor matters — and whether you should at least talk over the general

The real negotiation often takes place outside of formal bargaining sessions. Invite the union representative to lunch. Without an audience you both may be able to come to some agreement.

problem with someone not directly concerned with its day-to-day handling.

One final and all important point: Ask for, request, *demand* a written statement of the union's proposals before holding any meeting whatsoever. If that can't be obtained, then in your first meeting make it plain that you will confine the business to a presentation by the union of its proposals, together with any supporting material or evidence. Then adjourn so you can have a chance for a long, slow look at what appears in the small type, as well as in the large; in the inferences and implications, as well as in the obvious.

3. *Conduct the bargaining session yourself.* Assume your right to chairmanship. Take over as a matter of course. Greet the members of your staff on the bargaining committee as friends and fellow members of the same institutional family, and don't act unduly excited or impressed. Keep the whole introductory period calm and friendly. Always let the union make the first presentation. Never start out by attacking what you think their position will be, or by agreeing to it either. Sit back, give them every chance to present their case without interruption, but take a lot of notes—obvious notes—even on points that don't really call for that process.

This makes a good impression and gives you a status of one who considers carefully and who keeps track of what's going on. Be sure the union is all through with the preliminary statement, then ask any questions needed for clarification. Adjourn after setting a date (soon—stalling is not good) at which time you will be prepared to give your reply and, possibly, counter proposals to those that the union has presented. This is expected. Any experienced union negotiator knows that and will go along, though he might protest for the record and the effect on his own committee.

WATCH FOR KEY MAN

Here is something to watch for in your first session: Who is the real key man on the union team; who is referred to by the others; who is the evident leader? He may be the business representative or the chairman of the negotiating committee, or, perhaps, one who is just a rear rank private in title but who is nonetheless the man you want to give attention to. Most negotiation committees have a certain loading of individuals who are essentially negative insofar as active participation goes, and it will pay you to identify the real leadership.

You must recognize, moreover, that the paid representative, the man who collects the dues, must give evidence to his constituents that he is earning his money. Don't be surprised if this shows up in the form of table pounding, loud talk, and even abuse. Just remember that some of this, at least, is play acting, and don't let it get your temper out of hand for that is the quickest way to get yourself into trouble. Of course, there may come a time for a bit of acting on your part, too, and you in turn can work up a pretty good show, but keep it that, and keep your actual judgment and thinking on an unimpassioned level. Don't get any ideas that these employes of yours are being disloyal by taking part in the bargaining. That's the way things are these days; accept that, and go on from there.

Have representatives of departmental management with you in the session. The time may come when you and they differ on some point, but *never, never* let that difference show in a negotiating session. If you see some new or unexpected issue coming up or note a tendency to a difference of opinion on a negotiating team, call a recess promptly, settle your own procedures, then go back into session with a united front. Any other action can be fatal to a successful conclusion of your negotiation.

There is much value, too, in listening and letting the other side do the talking. I know one effective negotiator whose best single word is "Oh?" When some undesirable point is brought forward by the union, he just sits there and says, "Oh?" and then waits without discussions or counter arguments—at length, if necessary—for the union either to get logical or to entangle itself to a point of usefulness to the management cause. Try it sometime!

4. *The real negotiation takes place.* This often takes place outside of formal bargaining sessions which, as has been noted, are often of necessity more or less window dressing, and for the record on both sides. When each side has had a full opportunity to state its case, when the key issues have become at least generally defined, then may be the time to adjourn and to make a date for lunch with the key

man on the union team. By this time you should have some idea as to what he is like: closemouthed or vocal, Yankee horse trader or wide open bargainer.

Does he ask for the world with a fence around it, with the fence painted white and covered with roses in the hope of getting a small plot of reasonably fertile ground; or does he present a reasonably logical set of demands that must be met on their merits? In any case, now is the time to get him away from his audience and find out how nearly you can both come to agreement, an agreement that each may have to sell to his own constituency.

Your union representative is a realist. He probably knows pretty well what you can and will give, even though this may differ materially from what he has been demanding in open meeting. I remember a man who agreed in such a session to mutually reasonable terms but who said, "Now we'll not tell the boys about this for a couple of weeks, for I want them to think we have had a hard struggle. By that time I can tell them this is absolutely all I could get out of you and they will take it, but not today."

Now don't misunderstand all of this—it is not easy even when you have him alone. He has to get something to show that he is on his job. But you do have a chance to explore various approaches to the problem, to find out what he will give in return for what he needs to get; a chance to try out a new formula, the time, in short, for some real bargaining in the old-fashioned sense.

All of this can go on for some time, meetings, conferences, huddles, but eventually you will come out with an agreement. And now, just a few final comments on the whole procedure: Remember that these folk are your employes the year round, the ones you will want to meet from day to day on the level of mutual courtesy and friendship. Don't let any resentment over their being on the opposite side of the argument make you forget that. They will still be working for you when the negotiation is all over, and your bargaining sessions can set the tone for future relationships. Don't forget that you must eventually agree. Maintain a consistent and friendly relationship even when you differ. Respect the convictions that they bring into this relationship and try to understand their reasons for having them.

Don't let resentment over employes' being on the opposite side of the argument keep you from meeting them on the level of mutual courtesy and friendship. They will still be working for you when the negotiation is all over.

Try earnestly for a settlement that is reasonable and fair for all, which means, among other things, one that will give neither unfair advantage nor disadvantage to one group of your employes as related to others.

Don't try to use a collective bargaining set-to as a means of "union busting." Shoot straight and shoot square. A smart and hard-boiled bargainer can gain respect if he is fair. Mutual respect can be maintained throughout the whole experience and should be. With it, together with patience, energy, good will, and very firm determination, an agreement usually can be reached.

WHAT ABOUT ARBITRATION?

There may still come a time when negotiations break down with both sides still apart. What then? The union will talk strike and may well mean it. At that point, you'd better bring in your top administration. There can be situations when it is better to take a strike, to fight it out once and for all rather than to give in on crucial issues. But before that decision is finally made, it is well to consider the use of arbitration. It should not be thought of just as the easy way out, as a painless substitute for real negotiating and bargaining. It should be used, in any case, only as a last resort.

Consider the issues themselves. Look to your strategic position, to the public relations aspects of the matter. Are these issues ones on which the administration can afford to delegate decision, or to agree to make a decision itself in accordance with the findings of an outside arbitrator? Take a long, hard look before you decide, but in the final analysis put the burden of proof on "why shouldn't we arbitrate?" and not on "why should we?"

In most cases, it is probably the better choice over a strike, but the final decision here should be made only as of the conditions then existing and by the top level of administrative responsibility in your institutional organization.

To summarize this whole matter: (1) Be sure your union has the right to represent; (2) prepare yourself carefully before you negotiate; (3) be hard-boiled, realistic and fair in your formal and informal bargaining sessions; (4) recognize that in the long run both sides have common interests as well as competitive attitudes toward the use of your operating funds; (5) accept the fact that unionization and collective bargaining are so generally the pattern that you should be prepared to meet them as more or less routine, rather than as something unexpected, undesirable or frightening.

Less clerical effort is just one of the advantages of the pooling plan.

"Book Value" called the

ACCOUNTING FOR

IN THE OCTOBER 1952 ISSUE OF COLLEGE AND UNIVERSITY BUSINESS there appeared an article entitled "Investment Trust Accounting Can Easily Be Applied to the Pooled Funds of Colleges" by Chandler H. Foster, C.P.A. In essence, Mr. Foster's proposition, as indicated in the title of his article, is that the "market value" method of accounting for pooled investments as applied to investment trusts and common trust funds administered by corporate fiduciaries should be applied to the pooled funds of colleges and universities.

Inasmuch as the foregoing article contained no comment with respect to the recommendations of the National Committee on the Preparation of a Manual on College and University Business Administration as set forth in Volume I of "College and University Business Administration," recently published by the American Council on Education, and little comment with respect to the present practices of colleges and universities in accounting for pooled investments of endowment funds, it appears appropriate that this be done.

MARKET VALUE

What is meant by the market value method? The market value method comprehends the establishment of a new investment pool entity each time a fund is added to the pool or each time a withdrawal from the pool is made. It involves a valuation at market value not only of the securities to be added to the pool but also of all securities held as investments of the pool. Thus unrealized gains and losses on securities held as investments of the pool are included in the formula for distribution of income.

The University of Chicago has for years been known as the outstanding example of the administering of an investment pool on the market value basis. In all probability the best description of this method is contained in an article by Harvey C. Daines, for many years controller of the University of Chicago (retired in 1951), entitled "Theory and Procedure for Pooled Investments in Colleges and Universities."[1] Mr. Daines has long been known among college and university business officers as an ardent advocate of the market value method.

In the 1952 published report of Dartmouth College, it was indicated that that institution adopted the market value method for accounting for its endowment funds investment pool as of June 30, 1951.

As indicated in Mr. Foster's article, the market value method has been adopted in practice for investment trusts and common trust funds. Why has not the market value method been more widely adopted by colleges and universities? What are the differences between common trust funds as administered by corporate fiduciaries and endowment funds of colleges and universities? Before answering these questions it may be appropriate to indicate briefly the background leading up to the present practices in accounting for common trust funds.

Common trust funds are administered by corporate fiduciaries under federal and state banking laws. Prior to 1937, for income tax and other reasons, each trust fund administered by a corporate fiduciary had to be separately invested. Under the sponsorship of a special committee of the trust division of the American Bankers Association, steps were taken to permit pooled or combined investments of small funds separately held by corporate fiduciaries. Effective Dec. 31, 1937, the board of governors of the Federal Reserve System added a new Section 17 to Regulation F entitled "Common Trust Funds," which was subsequently amended from time to time.

Regulation F governs the operations of trust departments in national banks and Section 17 thereof has been extended to state-chartered trust institutions through the adoption of an amendment to the Internal Revenue Code by granting tax advantages to common trust funds maintained in conformity with the rules and regulations pertaining to the common trust funds of national banks.

Local enabling acts have been enacted in a number of states to permit funds held by a corporate fiduciary under certain defined conditions and supervision to be invested in the common trust fund. By way of example, the following is a summary of certain of the provisions affecting the accounting for common trust funds under the laws and related regulations of the state of New York:

1. The market value of the investments of the common trust fund must be computed quarterly and may be

[1] A paper presented at a meeting of the Association of College and University Business Officers, Ann Arbor, Mich., and reprinted in the February 1940 issue of the Journal of Accountancy.

preferred method of

POOLED INVESTMENTS

RALPH S. JOHNS
C.P.A., Haskins & Sells

computed more frequently if desired. No fund may be admitted to or withdrawn from the common trust fund except on the basis of such market valuation of the total assets and as of such a valuation date.

2. The income of a common trust fund shall be computed on the accrual basis and the apportionment of income shall be determined at each valuation date. The income shall be distributed to participating estates, trust or funds not less frequently than quarter-annually, either on the basis of income accrued or on the basis of income actually received.

It may be seen from the foregoing that common trust funds must be administered by corporate fiduciaries in a manner to provide for distributions of principal as well as distributions of income. It is essential, therefore, that the proportionate interests of the participating funds take into account both realized and unrealized profits and losses. It is also essential that all profits and losses as well as income be distributed currently to the participating funds.

When the markte value method is used, it is customary to admit new funds into the pool quarterly, although it may be done more frequently if desired. The more frequently funds are admitted into the pool under the market value method the more complicated becomes the distribution of income.

DIFFERENCES BETWEEN FUNDS

It may be appropriate at this point to indicate some of the differences between common trust funds administered by corporate fiduciaries and endowment funds of colleges and universities:

1. Common trust funds are subject to the provisions of the Internal Revenue Code; endowment funds of colleges and universities are not subject to such provisions. In other words, the profits and losses and income received with respect to common trust funds are subject to federal income taxes.

2. Each and every common trust fund is bound to terminate at some time; in fact, many trusts may be subject to periodic withdrawal from the common trust funds investment pool. Endowment funds are established in perpetuity; therefore, rarely would there be a withdrawal from an endowment funds investment pool. Stated otherwise, a common trust funds investment pool must provide for current distributions of principal as well as income; only the income of an endowment funds investment pool is expendable.

3. Common trust funds have very little interests in common except as to their investment (even with respect to the same fund the identity of the principal beneficiaries may differ from the income beneficiaries), whereas endowment funds of an educational institution are all dedicated to the broad corporate purposes of the institution.

4. The accounting requirements for common trust funds in some states are prescribed in specific statutes; this is not so with respect to endowment funds investment pools.

5. The probabilities of litigation with respect to common trust funds are much greater than they are with respect to endowment funds of an educational institution.

The first two items of differences listed here are basic and indicate why colleges and universities have more latitude in the adoption of investment pooling plans than do corporate fiduciaries in the establishment of common trust funds.

By and large, the commonest method of distributing income received from pooled investments of endowment funds is on the basis of the balance in the principal accounts of the participating funds which hereinafter will be referred to as the "book value" method. Some educational institutions allocate realized profits and losses on sales of securities to the participating funds and some do not; also, some institutions distribute all income received from investments each year while others record income received through an income reserve account for purposes of stabilization.

Under the plan[2] I advocate profits and losses realized be recorded in a separate principal account in the pool; income is distributed to the participating funds on the basis of a predetermined rate, any differences between income realized and income distributed at the predetermined rate being credited or charged, as the case may be, to the income reserve or stabilization account. In accordance with this plan, income applicable to accumulated profits resulting from sales of securities and so forth that have been reinvested is not distributed to any specific fund but is included in the income that is prorated over the various funds participating in the pool.

POOLING PLAN

The pooling plan herein advocated, when compared with pooling plans established for common trust funds, may be questioned with respect to two features: (1) failure to recognize realized or unrealized profits and losses in connection with the admission of new funds into the pool, and (2) failure to distribute to the participating funds the entire income received each year. However, experience has demonstrated the merits of the plan and any theoretical objections are eclipsed and rendered immaterial by its practical advantages; after all, the true test of any plan should be its practicability and reasonableness. Among the advantages of the plan are the following:

1. Funds may be added to the pool at any time (under the market value method new funds and additions to old funds must be kept separate until the next succeeding "valuation" date).

2. There is less clerical effort. (What educational institution has ex-

[2] For a more complete description of the plan see "A Plan for Pooling the Investments of Endowment Funds" by Ralph S. Johns in the January 1939 issue of the Journal of Accountancy.

cess funds with which to pay for unnecessary clerical services?)

3. Successive annual published reports show the same amounts for the principal of the funds (except where funds are increased during the year as a result of additional contributions).

4. Income, being fixed at a predetermined fixed rate, is known in advance for the fiscal year (again except where funds increased during the year by additional contributions); recording income through an income stabilization reserve not only is more economical but also results in more effective budgetary control.

If all endowment funds income of a particular institution were available for general purposes, *i.e.* unrestricted, it would make no difference whether the market value method or book value method of distributing income was adopted; under either method the total income received would be the same. As a matter of fact, a substantial proportion of the endowment income of our colleges and universities is unrestricted; furthermore, in most instances when the income is restricted to a particular purpose the endowment funds income rarely supports the entire project. In other words, appropriations are made from general funds as a supplement to the income received from endowment funds to support the project.

For example, the total income from endowment funds may be $2,000,000 and the total appropriations for the department of chemistry for salaries, equipment and research may be $200,000; it is immaterial whether the income received from endowment funds in support of the department of chemistry is $20,000 under the market value method and $180,000 is appropriated from general funds or the income from endowment funds for support of the department of chemistry under the book value method is $19,900 (or $20,100) and the appropriation from general funds $180,100 (or $179,900). Thus, the number of instances where the theoretical inexactitude of the plan herein recommended makes any difference from a practical point of view are few indeed, and it is doubtful if the differences ever would be material.

RECOMMENDATIONS OF COMMITTEE

During the course of the deliberations of the National Committee on the Preparation of a Manual on College and University Business Administration leading to the publication of Volume I of "College and University Business Administration," there was presented to the executive committee of the foregoing national committee, in June 1951, a recommendation that the market value method of pooled investments be adopted as the recommended method for colleges and universities generally. This recommendation was rejected. There appears no description, therefore, of the market value method in Volume I. It follows that it was the opinion of the members of the national committee that the book value method was the desirable method to recommend in accounting for pooled investments of endowment funds.

The discussion in Volume I indicates that the establishment of an income reserve to stabilize the rate of income and the establishment of a principal reserve for realized profits and losses on the sale of investments are approved by the national committee. These points are discussed in the aforementioned volume (*pp.* 93 and 94) as follows:

"If desired, a portion of the annual earnings of endowment funds investments may be reserved to stabilize the rate of distribution. To accomplish this, a portion of the earnings from assets pooled for investment purposes may be set aside in a reserve account, which reserve should be reported in the current restricted funds group. . . .

"A reserve account should be established for the pool to which should be carried realized profits and losses on the disposition of the investments of the pool. Such a reserve should appear as an addition to or subtraction from the principal of the endowment funds on the liability side of the balance sheet. No income should be allocated to this reserve, since such income belongs to the participating funds.

"If the rate of earnings of the pool is forecast for budget purposes and the distribution of pooled earnings is made on that basis, a difference will exist at the balance sheet date between actual earnings and the distribution made on the basis of the forecast. The difference between the actual earnings and the earnings distributed should be added to or subtracted from the reserve for stabilization of endowment income mentioned previously. Any distribution of income made from the reserve for stabilization of endowment income should be made prorata to all of the participating funds, and no direct appropriation should be made from this reserve."

Subsequently there was presented to the editorial committee of the national committee the variation of the market value method, which likewise was rejected, based upon the previous action of the executive committee.

One other recommendation of the national committee is deserving of mention at this point. In the aforementioned article the author refers to combining in the same investment pool endowment funds, funds temporarily functioning as endowment, building funds, and annuity funds, commenting that funds may be withdrawn from the investment pool as readily as they may be added to the pool. This suggested accounting treatment is in direct conflict with the basic principle of accounting recommended by the national committee, with which I fully concur, as follows (Basic Principle No. 6, paragraph [d], on page 18 of Volume I):

"Investments of different fund groups—that is, current, loan, endowment, and plant funds—should not be commingled in the same investment pool."

Funds of the different fund groups are held in different capacities and for different purposes; securities suitable for investment of one fund group may not be equally suitable for investment of the other fund groups.

CONCLUSION

From an accounting point of view, both the market value method and the book value method constitute acceptable methods of accounting for investment pools of endowment funds for colleges and universities. The market value method is the more appropriate method for common trust funds administered by corporate fiduciaries where provision must be made for frequent withdrawals from the investment pool, thus requiring provision for current distributions of principal as well as current distributions of income. However, the book value method, so widely adopted by colleges and universities and recommended by the national committee, is, in my opinion, definitely the method to be preferred, from a practical point of view, in accounting for pooled investments of endowment funds of colleges and universities and other nonprofit organizations.

Teacher recording magnetic sound track directly on the film with an optical-magnetic recording projector. The finished sound track will be tailor-made for his class.

Magnetic Sound Film Has Many Classroom Uses

PAUL R. WENDT
Associate Professor of Education and
Director of Audio-Visual Education
San Francisco State College

THERE ARE NOW ON THE MARKET several models of 16 mm. sound magnetic projectors. These machines project 16 mm. sound film which has been coated in the sound track area with a "stripe" of magnetic oxide such as is commonly used today on magnetic tape. These projectors also will reproduce the ordinary photographic sound track on film. Although magnetic sound film is still new and its possibilities have not been fully explored, some estimate can be made at this time of its probable uses.

Magnetic sound film will be very helpful to amateur film producers of all kinds, since in the past it has been relatively expensive to add sound to film. The cost of recording sound such as dialog on location usually has been prohibitive. Now it will be possible to add magnetic sound to any film for a nominal cost.

The raw stock used for photography in the camera must be single-perforated and the sprocket wheels in the camera must be of the sound-type with sprocket teeth on one side only. The camera speed must be 24 frames per second. After such film has been processed and edited, it can be sent to one of several laboratories to be coated with the magnetic material in the area normally occupied by the sound track. The cost of adding the magnetic stripe to a 400 foot reel is approximately $15. All that is necessary to add sound is to thread this film in the magnetic projector, set the sound system to "recording" position, and speak into the microphone as the picture passes on the screen. After rewinding, the film can be projected as a sound motion picture by turning the recording controls to "magnetic sound."

Not only does the magnetic coating method bring sound recording within financial reach of everyone, it also provides great flexibility. Any recording is immediately available for play-back and checking. Previously photographic sound recording on film required days for developing and printing in a motion picture laboratory before it could be determined by projection whether the recording was good. With the magnetic projector, it is possible to determine the quality of the recording immediately. Furthermore, if the recording is for any reason unacceptable, it can be re-recorded immediately on the same film.

The magnetic projectors all contain erasing heads which, when the projector is set for recording, automatically erase any recording already on the magnetic track. Thus, it is possible to continue re-recording until a perfect "take" has been made. Contrast this with the situation in photographic film recording, where it is necessary to have each "take" processed at the laboratory before it can be played. All "takes" have to be processed to determine which one will be used. In magnetic recording the film is used over and over and only the best one at the end is retained.

The flexibility of magnetic recording is further demonstrated in the ease with which part of a recording can be replaced. If most of a reel of recording, for example, is acceptable but one sentence contains a mistake, a film can be threaded in the projector, the sound system set for play-back, and the film projected down to the point where the sentence occurs which is to be re-recorded. At this point, the projector control can be set to the recording position and the new sentence re-recorded. The projector will automatically erase the previous recording of the sentence containing the mistake.

Magnetic sound recording is usually of a higher quality than photographic

Professors can add their own sound track to commercially available films to present a subject in their own way and in accordance with their own point of view.

sound on film. Even the finest photographic sound track contains some background noise from the graininess of the film. A good magnetic recording is noiseless. Furthermore, photographic sound tracks become scratched and noisier on successive projections. Magnetic sound recordings do not change perceptibly. In fact, the magnetic recording on a 16 mm. film is likely to outlast the picture image which necessarily deteriorates after several hundred projections from scratches and handling, even with the best of care.

Magnetic recordings can be accidentally erased if they come into a strong magnetic field, but this is not likely to happen in ordinary use.

The magnetic sound projectors cost up to 40 per cent more than ordinary 16 mm. projectors and may add up to 20 per cent to the weight of the case containing the projector head. Models vary considerably in these two respects.

It is obvious that the magnetic sound projector will be useful primarily to amateurs and to those desiring to put their own sound track on a film. Since they are usually less expert in writing and recording commentary, they will enjoy the flexibility of the machine which allows them to record and re-record until the sound track satisfies them. The magnetic sound stripe may even be available on 8 mm. film.

There are situations where it may be desirable to have the same film with different sound tracks intended for different audiences. In industry it may be desirable to put one sound track on a business film for one group of trainees and a different sound track for another group. This would allow for differences in the amount of previous training on the job, in natural intelligence, or perhaps in the amount of supervision possible during training. The same training film used twice at different times in a training program would seem fresher the second time with a different track taking into account the intervening training.

Films in adult education could have different tracks for different language groups, economic levels, or cultural backgrounds. Locally recorded tracks can adapt film commentaries to particular local situations. The motivational value of local material is well known to educators. In general, therefore, the magnetic track makes it possible to get away from the "canned" aspect of photographic sound tracks on film and to adapt the sound track more specifically to each audience.

It is possible to have a half-width magnetic stripe coated on a 16 mm. film which already has a photographic sound track. This covers only half the photographic sound track. In the magnetic projectors it is possible to play either track of such a film, although neither would be of as high a quality as they would be if they were full width. This half track makes possible some interesting teaching technics.

In language classes the magnetic recording can be a foreign language translation of the English photographic track. A language student can switch from the original to the translation at any time while watching the pictures accompanying the tracks. In the case of a training film used at two points in a training unit the photographic track can be used at the first projection and the magnetic track, adjusted to a higher level of difficulty of comprehension, can be used for review.

These uses of the magnetic projector seem to have real possibilities. More doubtful is the claim that the magnetic sound track will be used by classroom teachers to revise for their own purposes the photographic sound tracks incorporated in the standard educational film releases. The suggestion is that any classroom teacher can record her own personal commentary on standard teaching films instead of using the commentary supplied by the film producers. The question here is whether classroom teachers can spare the time and effort that recording her own commentary is going to take.

In the first place, exact synchronization of commentary with the picture is important. One of the basic rules of film production is that the commentary must never be discussing something that is not being shown on the screen. It is not sufficient for the picture and sound to be approximately in synchronization. They must be exactly together.

In the second place, writing a good commentary for a film requires experience, a good vocabulary, and an ability to rewrite ideas. It is hard work, as any studio writer can testify. It takes time. A teacher cannot dash off a commentary in half an hour after school.

The question, therefore, is whether many teachers with a crowded schedule will be willing to devote the time to putting a new commentary on a teaching film. It seems more likely that they will be willing to sacrifice the advantages of a locally produced commentary and accept the expertly written commentary supplied by the film producer.

More uses for magnetic sound film will undoubtedly arise. At present it seems that it will not replace by any means photographic sound film, especially in the professional field. It is most valuable for amateur producers, and as they experiment with it they will probably uncover further uses.

FINANCIAL AID TO STUDENTS

Assistance program at Antioch College couples student loans with scholarship assistance

MORTON RAUH
Business Manager
Antioch College, Yellow Springs, Ohio

A RECENT SURVEY MADE BY ANTIOCH College of the financial aid resources of 25 colleges having enrollments of under 3000 students disclosed the widest variation not only in the extent of these resources but in the respective usage of loans and outright scholarship grants.

Of particular interest was the ratio of scholarship to loan funds. This ratio varied from 0.2 to 8.0. In other words, while some colleges are using loan funds almost to the exclusion of outright grants, others appear to rely chiefly upon the scholarship as a means of assistance. The absence of any consistency in these ratios suggests that there is little agreement among the institutions as to some optimum combination.

It is the purpose of this article to set forth the financial assistance policies of Antioch, one of the basic fundamentals of which is the coupling of loan and scholarship assistance.

TUITION REDUCTION

Antioch does not have "scholarships" in the conventional sense of stated sums of money awarded each year. Instead, it reduces the tuition of qualifying students by amounts tailored to meet the exact and demonstrated needs of the individual students. The amount of the reduction is arrived at after thorough consultation between the applying student and the administrative officer in charge of the program. In these meetings an extensive application is carefully discussed. Particular attention is given to the detailed budget to make sure that it is realistic on the one hand but not excessive on the other. Resources are carefully examined, and a form filled in by the parents is used to judge the extent of their ability to contribute. The form of the application and the nature of the interview both are designed to bring the student's thinking in the direction of planning for his entire undergraduate period rather than on a year-to-year basis.

Thus, tuition reduction will vary each year in accordance with the student's demonstrated needs. Tuition reductions are outright grants, and there is no obligation to repay them.

LOANS

Antioch makes extensive use of personal loans as a means of aiding students. The loan is generally recognized as an indispensable tool of modern economic life whereby a person is enabled to finance an immediate obligation out of future earnings. Since an important adjunct of higher education is the increased earning capacity that it produces, the loan obligation rests upon a sound base. It is not always easy to convince a student who has come from a family where the loan is a mark of improvidence that there is no stigma connected with borrowing money.

The loan funds vary widely in amounts, in repayment dates, and in interest rates.

BASIC POLICIES FOR AID

The following are the basic criteria by which Antioch decides whether it can assist students financially:

1. The primary obligation for financing his college education rests with the student and his immediate family. The application for aid must show: (a) that the student's family is contributing toward his education to the full extent of its financial means; (b) that the student himself has made every effort to investigate possibilities for assistance through sources available to him, usually in his home town.

2. The student must demonstrate by a detailed budget that he knows how to plan his finances; knows how to make his money go as far as possible. He must show that there are no "luxuries" in his budgeted expenses. For example, no student receiving aid can own or operate an automobile except in unusual circumstances.

3. Financial aid in general, but particularly tuition reduction, is granted only to students who show every indication that they will complete their degree requirements at Antioch. This does not mean that aid is reserved only for the exceptionally fine students. It does mean, however, that a student whose performances in the academic, cooperative employment, or campus living area indicate he may drop below the minimum standards for graduation will probably not receive assistance.

4. Tuition reduction is granted only in conjunction with borrowing by the student. This policy is based upon the assumption that if the college is to invest in the student's future through special grants toward his education, then he too must make an investment in the form of a personal debt.

GRANTS MADE YEARLY

At the present time, this debt figure is set at $850 over the entire undergraduate period. It is not necessary for a student to incur the entire debt before being eligible for tuition reduction. Rather, borrowing and outright grants are made each year with an attempt to keep the amounts about equal.

With the financial needs of colleges as extensive as they are, there is some doubt as to the wisdom of expanding scholarship facilities without limit. We have found it entirely practical to broaden our financial assistance program without materially increasing scholarship grants through the use of loan funds.

INTER-FAITH CENTER AT CORNELL

ELEANOR BILLMYER
Department of Public Information
Cornell University
Ithaca, N.Y.

THREE-SIDED ALTAR on electrically operated turntable in chapel of Anabel Taylor Hall. Rabbi Morris Goldfarb explains carvings on Jewish Ark of the Covenant to Msgr. Donald Cleary (left), a university pastor, and the Rev. Clinton Ritchie, associate director of Cornell Religious Work. The altar setting for Christian services is on the right; the one for the nonsectarian services is not shown in the picture.

PEOPLE OF ALL RELIGIOUS BELIEFS are at home in Cornell's new Anabel Taylor Hall, one of the most unusual interfaith centers in the country. As you enter its lobby, you may see a rabbi and a priest talking together, or a sari-clad Moslem student in a group of Americans hurrying to a meeting.

As headquarters for Cornell United Religious Work, the building is the center for all denominational and religious groups on the campus. C.U.R.W., formed in 1919 when the Jewish and Catholic groups joined the former Christian Association of Cornell University, represents the Cornell tradition of religious freedom.

The $2,000,000 building was given by Myron C. Taylor, who stipulated only that the building should be named for his wife and that it should be a companion structure to Myron Taylor Hall, the Cornell law school building which he gave in 1929.

The architects' problem was to create a religious atmosphere without using decorations or symbols of a particular religion. Also, since the C.U.R.W. schedule includes study programs, service projects, and social affairs, the building had to include facilities for a variety of activities.

Its 150 seat chapel contains the most obvious example of the building's inter-faith purpose—a three-sided altar on an electrically operated revolving turntable, with settings for Christian, Jewish and nonsectarian services. Decorations in the rest of the chapel avoid crosses and pictures of saints, which would keep some groups from holding services there.

For other activities, the building provides offices for the united program staff and university pastors, social rooms, seminar and conference rooms, a browsing library, kitchens and an auditorium.

Both Myron Taylor Hall and the new building are of English Gothic architecture, and are built of Ithaca stone with trim of Indiana limestone and a slate roof. Both buildings are roughly L-shaped. Joined by a short cloister in back and a retaining wall in front, they form a quadrangle sometimes referred to as "the law and the prophets."

Located on a hill like many of Cornell's buildings, Anabel Taylor Hall

has three stories in front and four in the rear. Its first floor, ground floor, and basement all have exits on ground level.

The memorial lobby at the main entrance and the chapel, to the left of the lobby, are three stories high. The founders room, to the right, is two stories high.

Entering the lobby, one faces the war memorial, a 25 foot limestone tablet surmounted by a bronze wreath and carved limestone statues. On the tablet in bronze letters are recorded the names of the 478 Cornell alumni and students who died in World War II. Perpetual light is thrown on the tablet from a black granite light pedestal.

Instead of the customary cornerstone, the building has a "memorial box" set in the center of the lobby's flagstone floor and covered with a marble slab giving the date the building was erected. Commemorative material was placed here and the cover was sealed on the day the building was dedicated in October.

The chapel to the left also has flagstone flooring in its aisles, with rubber tile under the pews. The revolving altar, the pews, the lectern and the woodwork are all of oak, and most of these appointments are hand-carved.

Carved panels signifying the festivals of the Jewish calendar decorate the inside of the doors of the Ark of the Covenant on the Jewish side of the altar. The other two altar settings have backgrounds of tapestry with a design in gold thread, and the one for Christian services has a gold cross.

Each half of the 10 stained glass windows in the chapel represents a human virtue—such qualities as humility, wisdom, tolerance and temperance. In accordance with Mr. Taylor's dislike of "gloomy churches," the windows contain little dark glass.

At the rear of the chapel is a choir balcony with a pipe organ, given by Mr. and Mrs. Jacob P. Estey of Brattleboro, Vt., in memory of their son, whose name is among those on the war memorial tablet.

The founders room to the right of the lobby is used for formal receptions and teas. It is paneled from floor to ceiling with oak, and its floor is of pegged oak boards from 3 to 10 inches wide. It is furnished largely with museum pieces brought from Italy by the Taylors.

From this fairly sedate part of the building, one passes into the more functional offices and activity rooms. Along the corridor are another lobby, a reception room, offices for the C.U.R.W. staff, a student board room, and an activity room.

At the rear of the first floor is a

THE LAW AND THE PROPHETS. An air view shows how Anabel Taylor Hall (right) was built as a companion structure to Myron Taylor Hall, the law school building. Both buildings were given to the Ithaca, N.Y., institution by Myron C. Taylor, a Cornell alumnus.

browsing library, furnished with heavy plastic upholstered chairs and sofas and with blond birch library tables and chairs. To the left of the library is a seminar room that can be divided by a folding partition.

One flight down, on the ground floor, are offices for the various religious groups. Each group associated with C.U.R.W. has a private office for its university pastor and an adjoining room for secretarial work and student activities.

Also on the ground floor are a workroom with mimeographing and addressing equipment; a three-room apartment for the custodian; a large activity room, and a vestry from which a stairway leads up to the chancel of the chapel.

ONE WORLD ROOM

In the rear of the basement floor is the "One World Room," a large all-purpose hall decorated with photomurals of scenes from all over the world. A folding partition can divide the hall into two rooms that accommodate 150 persons each.

Separated from the One World Room by a laminated plastic covered serving counter is a large kitchen, with sinks, ranges, a dishwasher, coffe urn, and a dumb-waiter to small kitchens on the two floors above.

Most of the second and third floors are occupied by a two-story auditorium used for religious services, lectures, musical performances, and simply staged plays. The cylindrical-section ceiling and rear wall of this room are acoustically treated. The room contains 400 upholstered seats of the theater type and an electronic organ in the balcony at the rear. A stained glass window, forming a backdrop to the stage, can be covered by curtains.

Since Roman Catholic services are held in the auditorium, a confessional has been provided at the rear of the room. An altar on wheels can be rolled away when necessary, and one of the two adjoining dressing rooms holds vestments and other equipment.

An intricate public address system connecting the auditorium, chapel and One World Room allows for relaying programs from any of these rooms to overflow audiences in the other two. There is also provision for connecting the public address system to the tower in case chimes are installed.

The third floor of the building contains offices for the Rural Church Institute, a cooperating division of C.U.R.W., and for visiting lecturers or conference leaders. The space above the founders room contains two meeting rooms.

The building is heated by hot water, which is heated by steam from the university's central heating plant, through a tunnel from Myron Taylor Hall. The lobby and chapel have radiant heating coils in the floor, and the founders room has a radiant heating panel in the ceiling. All other spaces are heated by hot water convectors.

ACOUSTICALLY TREATED

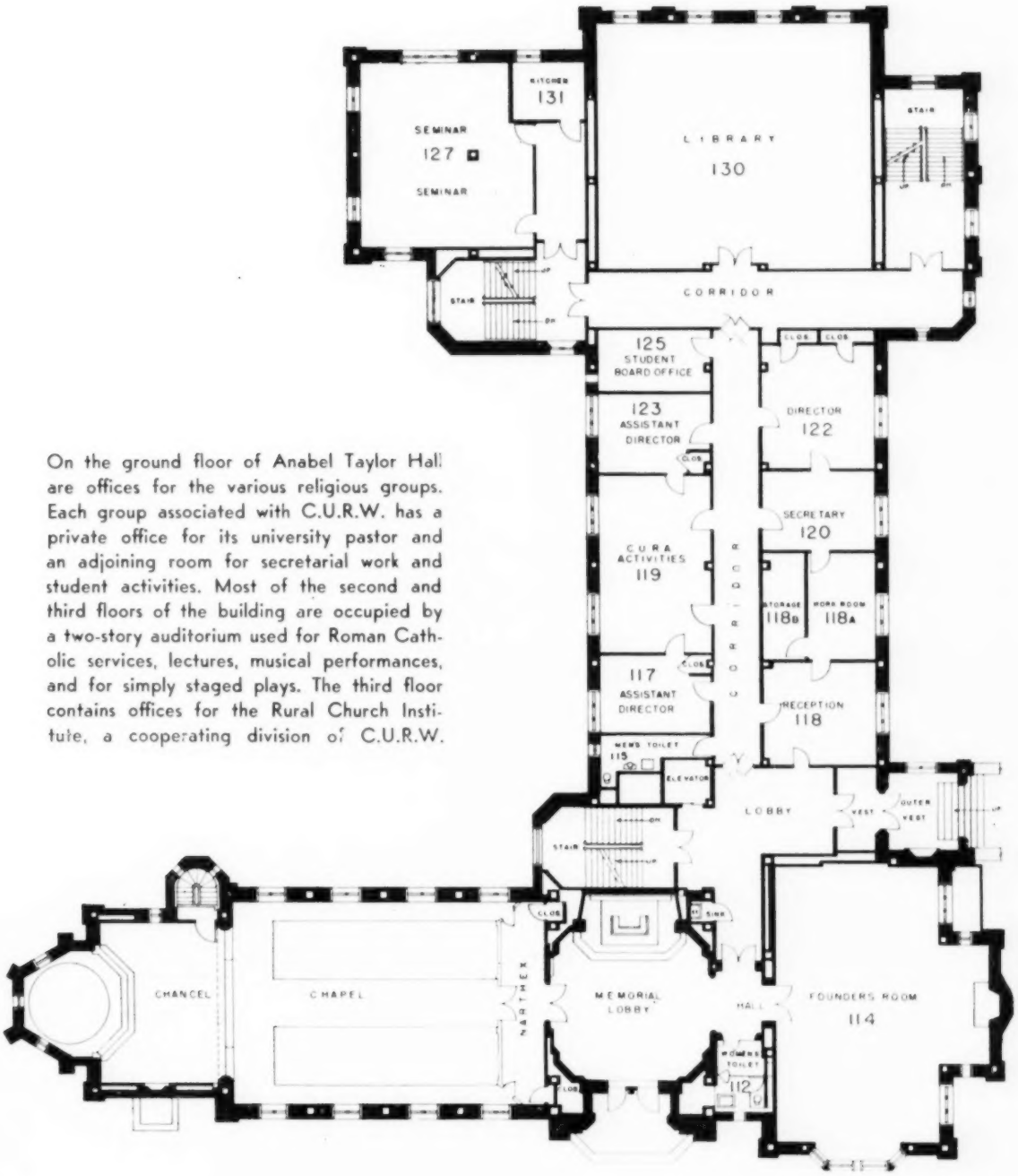
The auditorium, chapel and One World Room have supply and exhaust ventilation and the kitchens and toilets have exhaust systems. Except for the three high rooms in the front of the building, every room and corridor is acoustically treated with perforated or fissured mineral tile.

Terrazzo flooring has been used in the stairways and the first floor corridors. Otherwise, except in the chapel, lobby and founders room, the floors are covered with rubber or asphalt tile. Except for the stained glass windows, steel casement windows are used throughout the building.

Plastered walls painted in light tints of green, blue, rose and yellow are in

Servicing counter in One World Room, a large general purpose hall in Cornell's inter-faith center. Photomurals portray scenes from the world over.

On the ground floor of Anabel Taylor Hall are offices for the various religious groups. Each group associated with C.U.R.W. has a private office for its university pastor and an adjoining room for secretarial work and student activities. Most of the second and third floors of the building are occupied by a two-story auditorium used for Roman Catholic services, lectures, musical performances, and for simply staged plays. The third floor contains offices for the Rural Church Institute, a cooperating division of C.U.R.W.



FIRST FLOOR PLAN
ANABEL TAYLOR HALL

N

most of the building. The corridors are lined to a height of five feet with 2 by 2 inch ceramic tiles in the different tones of tan.

Bright draperies and upholstered modern furniture in the offices and activity rooms contribute a cheerful atmosphere. The office furniture is modern gray steel and the other furniture is of blond oak and birch. Chairs and settees are upholstered in bright fabrics of green, aqua, rose and brown.

The first sketches of the building were prepared by the late F. Ellis Jackson, who designed Myron Taylor Hall. After his death, the work was taken over by Eggers and Higgins, consulting architects; working drawings, details and supervision were carried out by Starrett and Van Vleck and Reginald E. Marsh.

UNION BUILDING

at Michigan Tech serves dual purpose

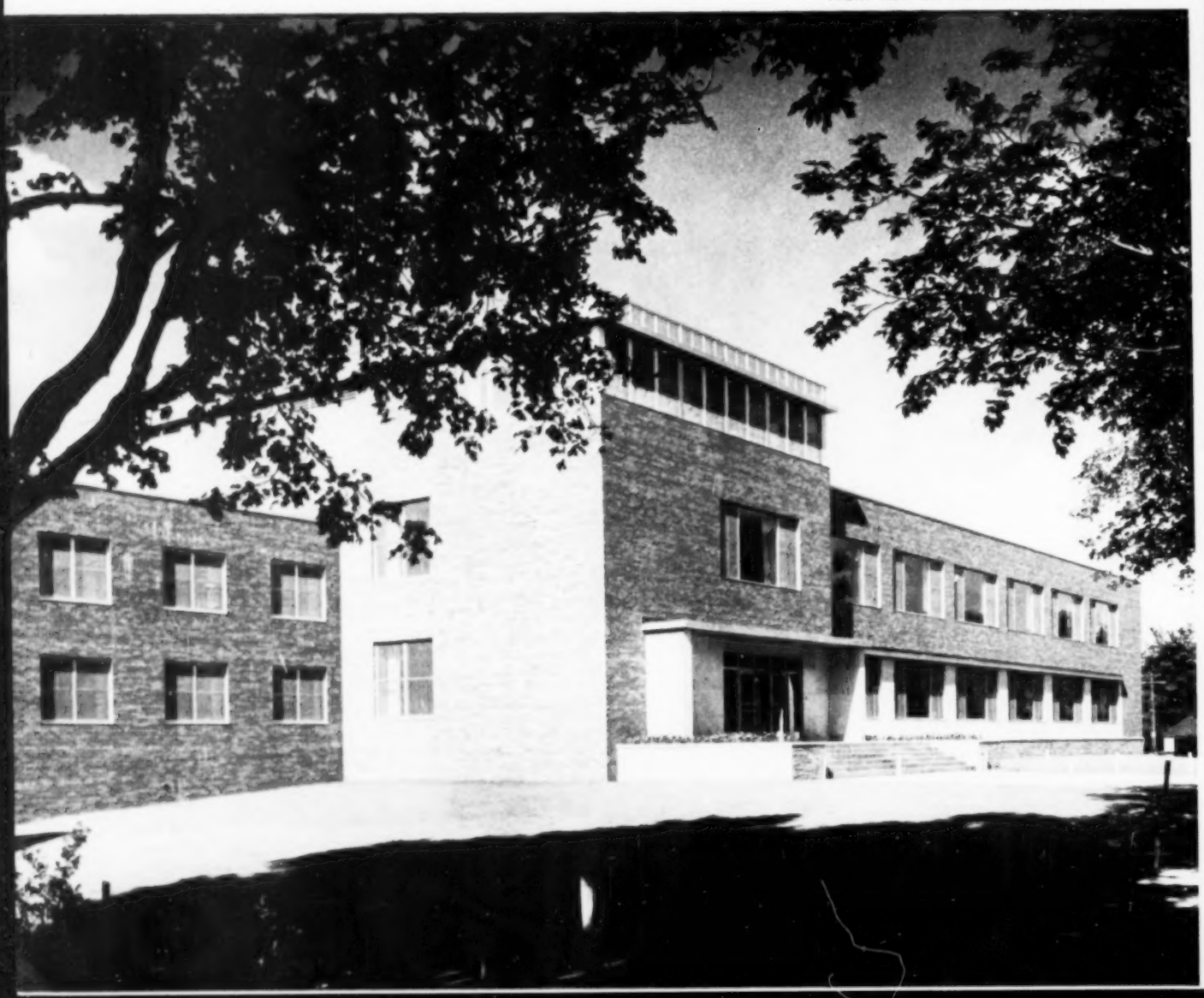
FRANK HARWOOD
Memorial Union Manager
Michigan College of Mining and Technology
Houghton, Mich.

THE NEW MEMORIAL UNION AT the Michigan College of Mining and Technology carries the functional theme into detail of design and operation. The architect's plan not only incorporates a wide variety of educational and social services but also provides for maximum use of any one service without disrupting normal operation of the others. This advantage is assured by an arrangement of space into distinct functional areas, all joined by central foyers on each floor.

Without sacrificing economy of space or increasing initial cost, the Memorial Union also incorporates duality of purpose into most of its features. It meets the heavy demands of routine student activities and has proved its adaptability to accommodate attendances of more than a thousand at conventions, banquets, luncheons, dances and conferences.

Located on the south side of College Avenue, Houghton's chief thoroughfare, Memorial Union faces the main portion of Michigan Tech's campus, which extends along the north side of the avenue. The architectural motif of the building is similar to that adopted for other recently

FRONT VIEW OF THE MEMORIAL UNION



MAIN LOUNGE, SHOWING ABOUT HALF THE TOTAL AREA OF THE ROOM

completed and planned structures on the campus.

Three of the Union's five floors are above street level on the College Avenue side; a gentle slope of the ground provides for a terrace and four floors above street level on the building's south side. Wings of the building radiate from central foyers. The main wing fronts on College Avenue and extends west, a guest room wing extends east, and a third wing extends south.

FIREPROOF CONSTRUCTION

Fully fireproof, the Union is of steel, concrete and masonry construction. Exterior facings are of mat-faced brick, Indiana oolitic limestone, and crab orchard stone extending up 3 feet above ground level on the front. Interior partitions are constructed of back-up tile, cinder block, and glazed tile in kitchen areas. All ceilings are of either acoustical plaster or tile, and walls are chiefly smooth finished plaster except where glazed tile is used in food service areas.

Asphalt tile over concrete is used for lounge, office and foyer floors. In dining areas, plastic tile flooring is used, and the ballroom consists of parquet patterned northern hard maple blocks on half-inch corkboard. Quarry tile is used in kitchen floors, and terrazzo on all stairways.

A service elevator in the central part of the building is so situated that it opens directly onto the receiving ramp hallway, the preparation kitchen and storerooms, main kitchen, main floor service area, and ballroom service area and kitchen.

The heating system employs convectors throughout, with the addition of fresh-air unit heaters in lounges and ballroom. A forced-air intake and exhaust ventilating system services the entire building. All rooms and areas have individual thermostat heat control. Steam, supplied from the college central heating plant, is used for heating and hot-water conversion.

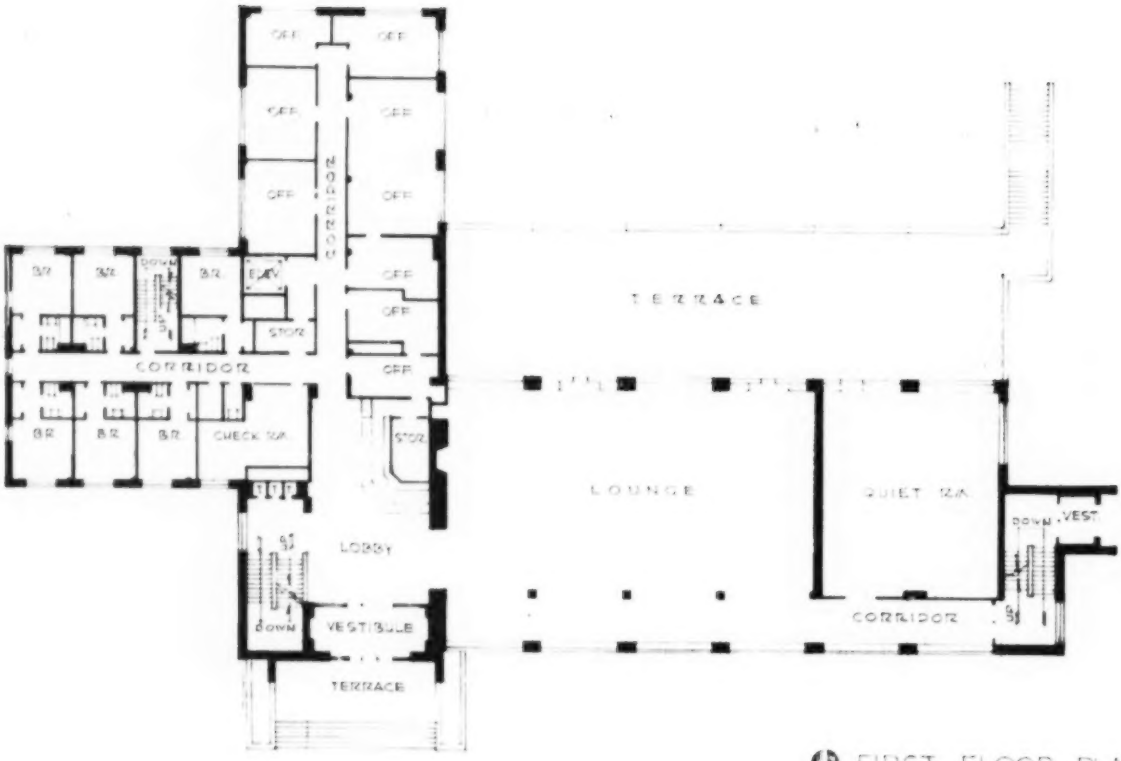
Windows throughout the Memorial Union are of the double-pane type with aluminum sash and frames, decorated on the interior by draw draperies hung from transverse rods recessed in ceilings. Used throughout the building, the draperies serve a double purpose, eliminating the need for other types of blinds and shades.

Except in offices, where extended fluorescent fixtures are installed, incandescent lights are recessed in the ceilings. All major areas of the Union are served by a public address system adapted for radio program relay, recordings and announcements. Speakers are recessed in ceilings. Telephone booths are built into the corridors of the main, ballroom and cafeteria floors.

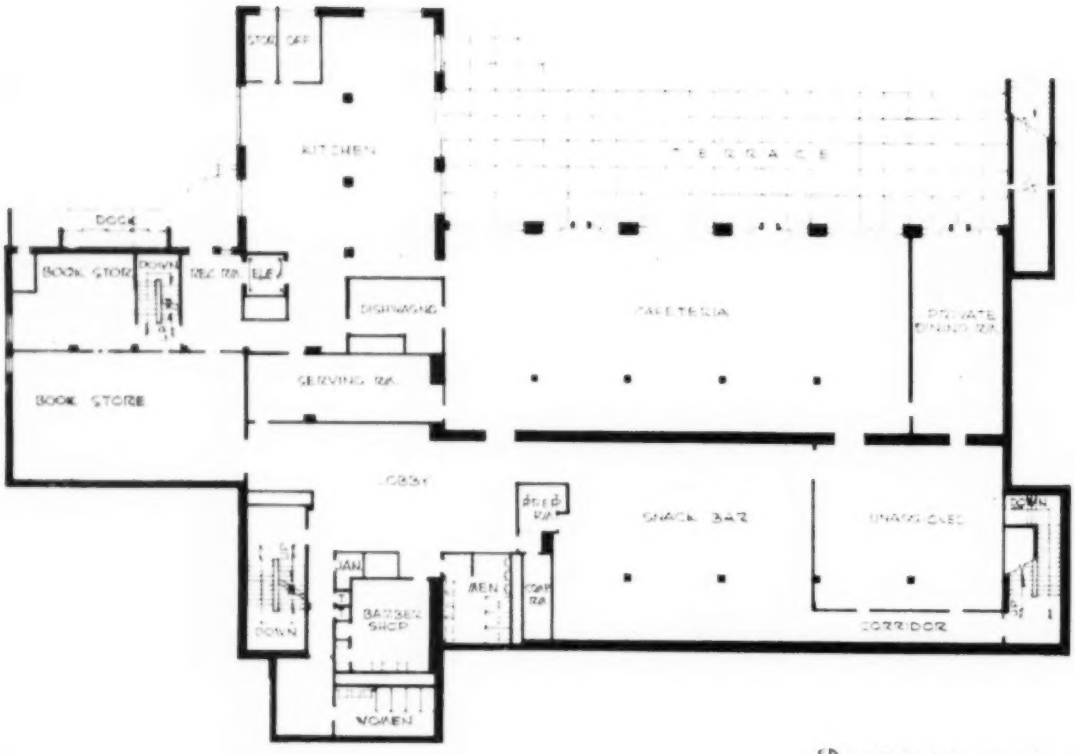
PLANNED FOR CONVENIENCE

The main entrance foyer is convenient to all parts of the Union; adjacent to it are the main lounge, checkroom, the main staircase leading to all other floors, and hallways leading to offices of student organizations, the alumni association, and the Union manager, and to the guest room wing. Fronting the main entrance and paneled in light oak, the L-shaped main desk is equipped to serve as campus information center and includes facilities and showcases for the sale of magazines and small items.

The telephone switchboard and public address system controls are placed in the staff office adjacent to the main desk, making it possible for



FIRST FLOOR PLAN



GROUND FLOOR PLAN

one attendant to serve in dual capacity during slack hours.

Furnished in modern decor, the main lounge contains a variety of settees, lounging chairs, and tables arranged and grouped to create informality. Full-height windows extend the length of both sides of the lounge, and doors on the south side open onto the terrace. Heavy linen draw draperies of bold flowered print complement the vibrant green carpets, pastel olive-green walls, the tans, reds and greens of furniture upholstery, and the polished mahogany and oak tables. Polished brass floor and table lamps feature bold cube and cylindrical base and large brass drum-type shades.

The low, wide fireplace at the east end of the lounge is faced with brown-hued ceramic tile, contrasting with the light oak paneling of the entire east wall.

A large "quiet room" at the west end of the main wing adjacent to the main lounge provides tables, desk and lounge chairs, and lamps for study purposes. Comfortably seating 44, it is decorated in restful shades of tan, brown and green, with tan walls and brown wall-to-wall deep pile broadloom carpeting.

Occupying two floors of the east wing of the Union, the 12 guest rooms have thermostatic heat controls, telephones, complete baths, and wardrobe closets with sliding doors. Different color schemes of furnishings individualize the rooms. Both floors of the guest room wing are connected by a separate stairway, and the upper floor opens into the foyer adjacent to the ballroom.

The ballroom occupies the major part of the upper floor of the main wing above the lounge and accommodates a maximum of 400 couples at dances. Like the lounge, it has full fenestration on both sides and draw draperies. A storeroom at the west end contains fold-away banquet chairs and tables that are used to transform the ballroom into a banquet room seating 450, or an auditorium with a capacity of 600. Pastel green walls and dark green draperies emphasize the gold tones of the parquet maple floor.

Folding partitions of the accordion type hung from recessed runners in the ceiling can be used to separate the ballroom into three smaller banquet or meeting rooms with a full-length corridor on the north side. The rooms thus formed are 41 feet

Ballroom on upper floor can be utilized for large banquets.

Desk in main foyer faces stairway leading to other levels.

Bowling alleys occupy a major portion of the lowest level.

long with widths of 20, 40 and 44 feet. Without partitions, the ballroom measures 104 feet by 51 feet.

Food service to the ballroom is conveniently handled through a kitchen on the same floor containing portable electric hot carts, a hot table, serving tables, sinks, a 50 cubic foot refrigerator, and coffee urns. Food prepared in the main kitchen two floors below is readily transported in the hot carts to the ballroom kitchen by service elevator. The hot carts and tables provide against usual delays in banquet starting times, and the efficient L-shaped arrangement of the kitchen affords smooth and rapid serving of maximum capacities.

The ballroom foyer, directly above the main entrance, contains lounging chairs and telephone booths, and is convenient to a women's powder room and men's restroom.

The faculty lounge and a large conference room occupy the penthouse floor of the Union. The faculty lounge has windows on three sides and is serviced by a small but complete kitchen that can be used for preparing and serving buffet and light lunches. Overlooking the campus from the front of the building, the conference room contains a long primavera conference table, armchairs, davenport, and lounging chairs.

PRIVATE BANQUET ROOM

Located immediately below the main entrance foyer and reached by the main staircase, the lower foyer of Memorial Union leads to the cafeteria serving tables, dining room, snack bar, barbershop, and college bookstore. The cafeteria dining room seats 184 at one time. Windows occupy the full south wall with two doors opening onto the lawn. Decorated with pastel gray walls and rust-colored floors, the room contains green upholstered chairs and draperies of cerise, green and brown that can be drawn to cover the entire south exposure. A private banquet room with individual outside entrance is situated at the west end of the cafeteria dining room and can accommodate 60 persons.

Containing a variety of upholstered booths and tables, the snack bar has a capacity of 135. Reddish-brown hues of walls and booth upholstery dominate the color scheme, contrasting with chartreuse upholstered chairs, light green floor, and cream glazed-tile wainscot. Adjacent to both snack bar and cafeteria dining room, a recreation room provides equipment for shuffleboard, table tennis, and bridge. This room can be readily transformed into a second private dining room.

The bookstore, located in the east wing, includes a salesroom with movable counters and show cases, storeroom with adjustable shelves, and the bookstore manager's office. The location of the bookstore adjacent to the Union's service entrance assures ease of receiving and handling supplies. Both the salesroom and storeroom open directly into the service entrance hallway.

Occupying the south wing floor, the main kitchen is connected to the cafeteria serving counters by an electric food warmer. Serving tables are stainless steel and electrically heated. Kitchen equipment includes three large self-contained refrigerators, two electric roast and bake ovens, two electric fryers, three steam pots, three gas ranges, and two electric mixers. A separate room connected to both kitchen and serving area contains a two-tank dishwasher with dual-drive conveyor.

Supplies for the entire building are received at the service entrance on the lower street level. Located at the junction of the east and south wings, the service entrance opens into a spacious driveway, providing a neat and inconspicuous arrangement of receiving and service facilities. A row of steel sliding doors extending along one side of the receiving platform secludes garbage and waste containers. The service entrance hallway opens into the service elevator, main kitchen, and supply rooms.

A preparation kitchen, located on the basement floor directly beneath the main kitchen and connected to it by elevator, faces three walk-in refrigerators, a walk-in deep freeze, and food storage rooms. This kitchen contains a potato peeler, ice machine, and other equipment for vegetable and meat preparation.

Efficient placement of all kitchen equipment, in addition to a logical separation of kitchen space into functional areas, has kept food preparation costs to a reasonable minimum.

The hallway adjacent to the preparation kitchen on the basement floor contains compressor units for refrigerating equipment, and leads to storage rooms, shower rooms for maintenance and food service personnel, and the power room where ventilating, hot-water, steam distribution, and transformer equipment is located.

Also on the basement floor, six bowling alleys and a pocket-billiard room are reached by the main staircase. An attendant's room faces both the alleys and the billiard room, and restrooms and locker rooms open into the adjacent foyer.

Among college student unions, Michigan Tech's is unique for the many distinct features and services it embodies, for its spaciousness, for the relatively low cost of construction. Total cost of the building and furnishings amounted to $1,200,000. Without furnishings, the unit cost was $1.10 per cubic foot; including furnishings, it was $1.29 per cubic foot.

Efficiency and low cost of upkeep were also given prominence in the designing of the Union. Centralization of service facilities and convenience of storage areas help to keep routine maintenance at a minimum, and the wide range of social, recreational and educational services available to students assures maximum utilization of the building.

COMPLETED IN 1952

The Memorial Union was initially financed by gifts totaling $300,000 contributed through the college's Alumni Foundation. A bond issue provided the remaining funds necessary for construction, which was begun in the summer of 1950 and completed in the spring of 1952. Ralph Calder of Detroit was the architect, and the interior decoration was designed and supervised by Mrs. Calder, the architect's wife. The general contractor was Herman Gundlach, Inc., of Houghton.

Assisting me in the management of the Union in matters of policy and student utilization is an advisory body, the Memorial Union board, consisting of six elected students, the treasurer of the college, one representative each from the board of control, the faculty, the alumni association, and the Alumni Foundation.

Do faculty and staff members have the authority financially to

OBLIGATE THE COLLEGE

T. E. BLACKWELL
Vice Chancellor and Treasurer
Washington University, St. Louis

THE ATHLETIC DIRECTOR OF A MIDwestern university received a letter, under date of Dec. 31, 1952, from the executive director of the National Collegiate Athletic Association, which read, in part, as follows:

"You undoubtedly will recall the provision in the 1952 N. C. A. A. Football Television Plan relative to an assessment to be made against TV receipts sufficient to meet the administrative budgetary requirements.

"To be exact, this was set forth in paragraph XII of the plan as submitted to the membership under date of May 31, 1952, at the time of the referendum mail vote: 'An assessment sufficient to meet requirements of the 1952 N.C.A.A. television budget, as approved and adopted by N.C.A.A. Executive Committee and Council, shall be made upon football television receipts of all N. C. A. A. member colleges for 1952, same to apply to all telecast games played during calendar year 1952, bowl games excepted.'

"Please be advised that the N. C. A. A. Executive Committee and Council, at their meetings, October 13-16, voted to make a 12 per cent assessment against the live television receipts of member colleges for the 1952 season. This assessment figure is based on a 1952 budget of $78,790. It should be pointed out that this budget figure includes a revolving fund of $25,000, which has been established by the Executive Committee and Council to meet any unexpected expenditures which might develop."

This letter and the demand for the payment of the assessment were transmitted to the chief business officer of the university. Both he and his president were much surprised to learn of this major commitment. When they challenged the right of the National Collegiate Athletic Association to make the assessment, they were told, in effect:

"We took a poll of the members and they agreed to the assessment. Since your institution is a member of the N. C. A. A.,' it is bound by the actions of the majority, acting in accordance with the duly adopted constitution and by-laws."

RAISES LEGAL QUESTION

This action of the N. C. A. A. raised the interesting legal question: "To what extent and under what conditions can the individual staff members and faculty of an institution obligate their institution financially without the prior knowledge and consent of the officers of the corporation?"

A lawyer would discuss this issue under the general heading of the implied and apparent authority of an agent to bind his principal, in the absence of express powers. The general rule is not difficult to state, but it is much more difficult to apply in the many complex situations of actual cases:

"Where a principal has by his voluntary act placed an agent in such a situation that a person of ordinary prudence, conversant with business usages and with the nature of the particular business, is justified in presuming that such agent has authority to perform a particular act, and therefore deals with the agent, the principal is estopped as against such third person from denying the agent's authority."[1]

The practical question that confronts every administrator is this: "What steps must be taken to make it clear to all concerned that his institution does not intend to be bound by the actions of the associations and organizations in which it may hold membership without the consent and approval of its governing board?

For an answer to this question, we may return to the midwestern university under discussion. Its president sent the following memorandum, under date of Jan. 20, 1953, to all members of his faculty and heads of departments:

"The following resolution which was presented to and passed by the board of regents on January 15 is, I think, self-explanatory: 'RESOLVED, that in the future whenever any association in which the university, any department of the university, or any staff member of the university is a member holds a referendum or adopts a policy which calls for any kind of financial obligation on the part of the university, the proposition shall be presented to the president of the university for his approval, and same must then be submitted to the board of regents for ratification before the university accepts any responsibility for such financial obligation.'

"It was presented primarily to reemphasize the responsibility which the president has for the administration of the budget and the responsibility which rests with the board of regents for the control of all financial obligations. It applies to any association in which the university holds membership. I think the resolution is perfectly clear and is an attempt to make the actions of all associations consistent with university policy."

From a legal standpoint this memorandum, in itself, may not be sufficient protection to the institution against a repetition of the difficulty that arose with the N. C. A. A. The athletic director of the university is now on notice that he does not have actual authority to make financial com-

[1] Johnson *v.* Investment Company, 64 N.W. 1100 (1895). General Cartage Co. *v.* Cox, 78 N.E. 371 (1906).

mitments similar to the one in question. However, if he should make such a commitment again, contrary to his express instructions, the institution might be bound thereby.

It is not enough to deny an ostensible agent authority. If his principal has permitted him, in the past, to so conduct himself that reasonably prudent individuals are led to believe that he has continuing authority to bind his principal, his authority to such persons to so act will be conclusively presumed to have been given.[2]

Consequently, the president of the institution under discussion would be well advised to send a copy of the resolution of his board of regents to the secretary of every organization or association in which his institution holds membership, which might conceivably take action that would involve major financial commitments.

The present plan for the televising of collegiate football games may involve the colleges in another legal controversy. The president[3] of one of the major television networks has made the following public charge:

"The National Collegiate Athletic Association has in the neighborhood of 300 football - playing member schools. Of these, approximately 120 are so-called 'major' teams. Now there are four major television networks and some 112 individual stations. In theory, each of these networks and each independent station could carry a different game on television.

"But it doesn't work out that way. The N. C. A. A. restricts the televising of football to one game per week. It says to the millions of television viewers, 'You may see this game we have chosen for you to see, but no other, no matter what your personal desires may be.'

"And it says to the television networks, 'Only one of you may carry this game; the rest of you are out of luck.' What's more, the N. C. A. A. has pegged the price of this restricted football program so high that only a few of the richest corporations in the land can afford to sponsor it.

"I submit that this is morally and legally contrary to the concept of our American free enterprise system. It is restraint of trade inappropriately disguised by an academic cap and gown."

Last January, the government opened its antitrust case against the National Football League in the federal district court in Philadelphia. The N. F. L. and the 12 members of this professional football league are charged with "unreasonable restraint of trade and commerce" under the Sherman Act, because of its ban on telecasting of games to cities in which league games are being played. Governmental attorneys declared that "citizens are entitled to have sports on television and radio free of restraint" and they declared that the N. F. L. policy is a "denial of the people of their right to see football games."

According to a United Press dispatch of Jan. 27, 1953, the government has indicated that if it wins its case against the N. F. L., it will take actions affecting the televising and broadcasting of college football games and other sports. N.F.L. was chosen for the test case because its regulations on televising are the most explicit.

[2]Meecham, F. R.: Outlines of the Law of Agency, Para. 105. Third Edition, Callaghan and Company, 1923.

[3]Allen B. DuMont at a luncheon of the New York Football Writers Association, Nov. 17, 1952.

TAX STATUS

of student-staff arpartments is disputed

LLOYD MOREY
Comptroller
University of Illinois

ON OCT. 31, 1951, THE BOARD OF trustees of the University of Illinois received a request from the Urbana Board of Education that the university make payments "in lieu of taxes" on the student-staff apartments at Green Street and Goodwin Avenue, Urbana. The request was referred to the committee on general policy. On Dec. 17, 1951, the committee recommended, and the board approved, (1) that the legal counsel be directed to take any and all steps that he considers necessary or desirable to establish and maintain the tax exempt status of the student-staff apartments, and (2) that university officers be instructed to continue their study to ascertain what services are rendered to the university by local taxing bodies and what would constitute proper compensation for such services and make recommendations thereon to the president of the university.

The university asserts, but local taxing bodies deny, that the student-staff apartments are exempt from local property taxation. To establish the university's contention beyond dispute would require litigation and eventually a supreme court decision. While the legal counsel is of the opinion that the supreme court would uphold the university's contention, the possibility of an adverse decision cannot be wholly ignored because the student-staff apartments are occupied in part by full-time staff members who are not students and thus may not be considered by the courts as being in the same category as student dormitories which are tax exempt. In any event, the expense of such litigation should be avoided if some other satisfactory solution can be found.

A supreme court decision favorable to the university would not wholly dispose of the controversy because local taxing bodies would continue to urge the university to make payments for municipal services to the student and staff apartments as authorized by an existing statute under which the university has been making such payments on other residence properties that are leased to staff members.

A comprehensive study of the occupancy of the apartments since they have been in use has established that they have been and are occupied to a

considerable extent by full-time staff members, although they are also occupied to an equal, if not greater, extent by graduate students. In a case decided several years ago the supreme court ruled that student residence halls are exempt from local taxation and the university has consistently adhered to the policy of not paying taxes and not making payments for services rendered by local taxing bodies with respect to properties occupied by students.

On the other hand, the university has made, and is now making, payments for such services under the statute with respect to properties of a permanent nature which are either owned by it or the title to which is held by the University of Illinois Foundation and which are leased to and occupied by full-time staff members. It would be consistent with these policies and practices if the university also would make payments under the statute for services rendered by the local taxing bodies to those portions of the student-staff apartments that are occupied by full-time staff members.

RESULTED IN PLAN

Discussions by university officers and special counsel with the state's attorney of Champaign County, who is authorized by law to enter into agreements with respect to payments for services under the statute, have resulted in a plan, satisfactory to him, as resolving these controversies, which contemplates:

"1. As authorized by the existing statute, the university will pay for the services rendered by the local taxing bodies to that portion of the student-staff apartments leased to and occupied by its full-time staff members by paying that proportion of the full amount of the real estate taxes that would be payable upon these properties if they were considered to be fully taxable which the number of apartments occupied by full-time staff members on April 1 of each year bears to the total number of apartments in the buildings on that date.

"2. Payments for such services will be made for the tax years 1951 and 1952, during which the student-staff apartments have been assessed for taxation and also for the tax year 1950 for which they were not so assessed. (Only one of the buildings was in operation at that time.)

"3. Prior to the making of such payments on the foregoing basis for the tax years 1951 and 1952, an agreement will be entered into with the state's attorney as contemplated by the statute in which he will agree that the payments made on that basis constitute proper compensation to the taxing bodies for services rendered by them to these properties during those years, and orders will be entered by the county court of Champaign County sustaining the university's objections to the assessment and levy of taxes against the properties for those years, setting aside and removing said assessments and levies, and approving said agreement between the university and the state's attorney. The provisions of those orders will be as identical as possible with those of an order heretofore entered by said county court sustaining the university's objections to the assessment and levy of taxes and to the county treasurer's application for judgment for taxes assessed and levied for the year 1950 upon other properties upon which the university made payments for services under the aforementioned statute for that year.

"4. No such court order will be obtained in connection with the payment of services upon the foregoing basis for the year 1950, but an agreement will be entered into between the university and the state's attorney with respect thereto which will recite that such payment is being made voluntarily by the university without prejudice to its contention and position that the student-staff apartment buildings were then and are now exempt from taxation and also without prejudice to the contention of the taxing authorities that they were not then and are not now tax exempt."

CANNOT BIND SUCCESSORS

While public officials now in office, including the state's attorney and the present members of the Champaign County Board of Review, cannot bind their successors, it is anticipated by all concerned that adopting and carrying out the plan recommended here with respect to the years 1950, 1951 and 1952 will establish a policy to be followed in subsequent years. Continuation of this policy by the university, however, will be contingent upon the statute authorizing it to make such payments remaining in effect and no increases being made in the assessment of the student-staff apartments in future years that are not in line and in proportion with increases in assessments generally of other properties in the city of Urbana.

The costs to the university will be: tax year 1950, $5150 (estimated); tax year 1951, $9544.90 (actual); tax year 1952, $9790 (estimated).

Adoption of the plan will require some increase in the rentals charged full-time staff members occupying apartments in the buildings, effective after termination of present leases. Hence, to meet payments due in 1954, a rental increase of from $8.50 to $10 per month for all apartments occupied by full-time staff members will be required effective next September 1.

Plant Management Controls . . .

. . . must be established by top management if campus operations are to be properly administered. John Kreinheder of Wellesley College will outline the necessary steps in the August issue.

Time study aids in finding fair and adequate load for

MAINTENANCE PERSONNEL

FRANK J. ZANFINO
Business Manager
Paterson State Teachers College
Paterson, N.J.

WHEN THE ASSISTANT COMMISSIONER for higher education of the state of New Jersey asked me to make a study of a fair and equitable load for building service and maintenance workers, my first reaction was that it would be impossible to arrive at any conclusion. Having a natural distaste for the job, I managed always to place it at the bottom of the pile of papers that found their way to my desk. However, I was rudely awakened at a recent budget hearing when we were asked to justify the number of building service and maintenance workers that we thought were necessary.

When a keen budget director asks a question of this sort, we don't answer it by launching into a theoretical discussion of why the workers are needed. Surely there must be some practical way to show why a certain number of workers are required. Otherwise, we must admit that we are merely acting in an arbitrary manner in determining our needs.

BOOK IS HELPFUL

With the interest of the assistant commissioner's office and the budget bureau, I immediately set to work on this problem. The book that I found to be most helpful was "The School Custodian's Housekeeping Handbook" by Linn, Helm and Grabarkiewicz.[1] This book gave a great deal of information that had to be applied to our specific situation. I took this material, together with some of my own findings, and drew up a time and motion study that showed what was required in one of our classroom buildings, Hunziker Hall.

In a study of this sort, it is necessary to include duties and activities that are performed frequently as well as those that may be performed only once or twice a year. Instead of expanding the items that were performed with greatest frequency to show the length of time it would require to perform these duties over an extended period of time, we decided to weigh all activities in terms of the amount of time the various operations would take per week. While this study does not show the findings for the entire campus, it does provide a method by which such findings can be developed. I should like to explain the operation of the study by a discussion of each column of the study.

Column 1—Item. Much of what is included in Column 1 was taken from the book, "The School Custodian's Housekeeping Handbook." We added to this some items that were not included and arrived at a comprehensive list for Hunziker Hall.

Column 2—Number of Units. The information contained in this column requires some time to compile. It necessitates a study of the building area and the type and number of all items that must be cleaned.

Column 3—Time Measurements (minutes). Much of the information contained in this column was taken from the standards contained in Linn's book. I timed some of our men while they were working and found an amazing similarity between what they were accomplishing and the time suggested by Linn. For this reason, in many cases, the time for these specific items is identical with the time suggested by Linn. In other cases, I used the time compiled by my own observation.

Column 4—Converted Time Units. This column is purely mathematical in nature. For example, in item No. 2 since 750 square feet is swept in 12 minutes, 15.2 converted units are included in the over-all area of 11,375 square feet contained in Column 2.

Column 5—Frequency. This column is very important since it has a direct effect upon the required time for certain items. Certainly, if an operation is conducted daily instead of weekly, it will require much more time over an extended period. In establishing the frequency, I consulted with the college president and other staff members in an attempt to determine the frequency with which certain items should be cleaned. We had to be practical in establishing the frequency. When I first suggested that the lamp shades as shown in item No. 18 and item No. 19 should be cleaned monthly, several staff members stated: "Why, we never have ours cleaned more than twice a year." The same reaction greeted my proposal concerning outside window panes. The staff members and other people I consulted were so definite about the frequency with which the lamp shades and window panes should be cleaned that I finally accepted their recommendations even though it does not agree with the recommendations of some of the experts in this field.

PLAN IS FLEXIBLE

Column 6—Weekly Conversion Factor. This column is mathematical in nature and is based on Column 5. It was my intention to weigh all factors so as to show the amount of time (in minutes) per week. Of course, if someone were to choose to weigh this so that it would give a monthly total, the conclusion would still be acceptable. It is in this conversion factor that other institutions will find the plan flexible enough to adapt it to their own needs. Hunziker Hall, for example, is used five days a week. Therefore, a daily frequency results in a weekly conversion factor of five for Hunziker Hall, whereas it might result in a weekly conversion factor of

[1] Linn, Henry H.; Helm, Leslie C.; Grabarkiewicz, K. P.: The School Custodian's Housekeeping Handbook, Bureau of Publications, Teachers College, Columbia University, 1948.

TIME STUDY OF MAINTENANCE PROCEDURES IN HUNZIKER HALL PATERSON STATE TEACHERS COLLEGE

(1) ITEM	(2) NUMBER OF UNITS	(3) TIME MEASURE (MINUTES)	(4) CONVERTED TIME UNITS	(5) FREQUENCY	(6) WEEKLY CONVERSIONS FACTOR (BASED ON COL. 5)	(7) TOTAL WEIGHTED WEEKLY TIME (MINUTES) COL. 3, 4, 6
1. Dusting classrooms and classroom furniture.	16	5 each	16	Daily	5	400
2. Sweeping classrooms – includes emptying wastebaskets, checking lights and windows.	11,375 Sq. ft.	12 each, 750 Sq. ft.	15.2	Daily	5	912
3. Sweeping corridors and halls.....	4,741 Sq. ft.	5 each 1000 Sq. ft.	4.74	Twice daily	10	237
4. Sweeping combination Little Theater and classroom and gymnasium play area.....	1,900 Sq. ft.	12 each 1000 Sq. ft.	1.9	Twice daily	10	228
5. Sweeping stairways.....	5	5 each complete one story flight	5	Twice daily	10	250
6. Cleaning stairs bannisters.....	5	2 each complete one story flight	5	Daily	5	50
7. Dusting and removing spots, classroom and hall fabric or tile wainscot	31,601 Sq. ft.	10 each 1000 Sq. ft.	31.6	Weekly	1	316
8. Cleaning room doors, glass and woodwork and polishing hardware.....	188	2 each door	188	Weekly	1	376
9. Cleaning entrance doors, glass and woodwork and polishing hardware.....	11	3 each door	11	Weekly	1	33
10. Mopping lavatory and lavatory dressing room floors.....	992 Sq. ft.	5 each 100 Sq. Ft.	9.92	Daily	5	248
11. Cleaning toilet stalls and doors.....	20	1 each stall and door	20	Daily	5	100
12. Cleaning toilet bowls and seats and metal fittings.....	21	2 each bowl	21	Daily	5	210
13. Cleaning urinals.....	4	1 each urinal	4	Daily	5	20
14. Cleaning wash bowls and metal fittings (includes filling soap dispensers).....	15	2 each wash bowl	15	Daily	5	150
15. Cleaning sinks and metal fittings.....	24	2 each sink	24	Daily	5	240
16. Cleaning drinking fountains and metal fittings	5	1 each fountain	5	Daily	5	25
17. Cleaning mirrors.....	12	1 each mirror	12	Daily	5	60
18. Cleaning open lamp shades.....	155	2 each lamp	155	Twice yearly	1/26	11.9
19. Cleaning closed lamp shades.....	189	4 each lamp	189	Twice yearly	1/26	29
20. Cleaning window panes inside.....	3,695 Sq. ft.	1 per 10 Sq. ft.	369.5	Monthly	¼	92.3
21. Cleaning window panes outside.....	3,695 Sq. ft.	1 per 5 Sq. ft.	739	Twice Yearly	1/26	28.3
22. Cleaning chalkboards.....	1,044 Sq. ft.	5 each 100 Sq. ft.	10.44	Twice Weekly	2	104.4
23. Collecting and cleaning chalkboard erasers	8 Dozen	3 per dozen	8	Weekly	1	24
24. Cleaning, caring and storing custodial cleaning tools and supplies.....		30 daily	1	Daily	5	150
25. Checking clocks.....	26	½ daily	26	Daily	5	65
26. Hanging flag and taking in.....	1	10	1	Daily	5	50
27. Checking temperature and thermometer...	24	½	24	Daily	5	60
28. Disposing rubbish (no incinerator).....	1	60	1	Daily	5	300
29. Sweeping outside walks to entrances.....	1,500 Sq. ft.	8 each 1000 Sq. ft.	1.5	Daily	5	60
30. Washing and waxing offices and classrooms, including baseboards.....	16,733 Sq. ft.	60 each 500 Sq. ft.	33.5	Monthly	¼	502.25
31. Washing corridors.....	4,741 Sq. ft.	60 each 1500 Sq. ft.	3.2	Monthly	¼	48
32. Sweeping office areas and faculty rest room	2,760 Sq. ft.	12 each 750 Sq. ft.	3.7	Daily	5	172
33. Dusting offices and office furniture, and faculty rest rooms.....	10	5 each	10	Daily	5	50
34. Sweeping locker rooms.....	2,088 Sq. ft.	12 each 750 Sq. ft.	2.8	Daily	5	168
35. Washing locker rooms.....	2,088 Sq. ft.	60 each 1000 Sq. ft.	2.1	Monthly	¼	31.5
36. Cleaning lockers.....	600	2 each locker	600	Twice Yearly	1/26	46.1
37. Sweeping and cleaning building custodial work areas.....	2,020 Sq. ft.	12 each 1000 Sq. ft.	2	Weekly	1	24
38. Jobs for supervisors, students and teachers..		60	1	Daily	5	300
39. Daily boiler maintenance cleaning filters —adjusting controls.....		60	1	Daily for	(8/12×5)	200

(Continued on Next Page)

TIME STUDY OF MAINTENANCE PROCEDURES, Cont.

(1) ITEM	(2) NUMBER OF UNITS	(3) TIME MEASURE (MINUTES)	(4) CONVERTED TIME UNITS	(5) FREQUENCY	(6) WEEKLY CONVERSIONS FACTOR (BASED ON COL. 5)	(7) TOTAL WEIGHTED WEEKLY TIME (MINUTES) COL. 3, 4, 6
40. Cleaning boiler tubes	—	120		8 Months Weekly for 8 Months	3⅓ (8/12x1) = ⅔	80
41. Washing stairways	5	15 each complete one story flight	5	Monthly	¼	18.7
42. Sweeping closets and supply rooms	883 Sq. ft.	5 each 500 Sq. ft.	1.7	Monthly	¼	2.6
43. Dusting and cleaning display cases	28 Sections	5 per section	28	Weekly	1	140
TOTAL						6,613

Total weighted weekly minutes (Col. 7) = Number of workers required for Hunziker Hall

Weekly minutes per man (40 x 60)

$$\frac{6{,}613}{2{,}400} = 2.75 \text{ workers}$$

five and one-half or six or even higher in some other institutions.

Column 7—Total Weighted Weekly Minutes (Col. 3, 4 and 6). As can be determined, this column is also mathematical in nature and is the product of columns 3, 4 and 6.

The findings of the study insofar as Hunziker Hall is concerned show that 6613 weekly minutes are needed for Hunziker Hall. Now if we assume, in the normal course of events, that a building service or maintenance worker works a 40 hour week, he would work a total of 2400 minutes per week. By dividing 2400 into 6613 we get approximately 2.75 men needed for building service or maintenance duties for Hunziker Hall. Of course, if the men were paid overtime, this would decrease the number of men needed.

I am not suggesting that this study is the cure-all and end-all of custodial problems. The same handicaps that confront other time and motion studies also confront this study. We must be careful that the study is not rejected simply because one or two points of the study are not acceptable. One person reacted, "Our janitors are interrupted so much by the requests of teachers and students. We can't possibly make up a time and motion study showing our needs." Must this situation exist?

It seems to me that it is possible so to handle requests and interruptions that members of the custodial staff are not hampered in the performance of duties. A good foreman or head custodian should establish a line of communication that would handle all such requests in an organized way. This is nothing more than good planning.

I made several tests to determine the extent to which our custodians were necessarily interrupted. I incorporated the findings in item No. 38 of the study. Other problems may be handled in the same way. For example, in a building containing an auditorium or gymnasium, it is possible that a member or members of the custodial staff should be stationed near the spot where the audience is congregated. If group activities occur frequently, then it is necessary actually to incorporate the added responsibilities resulting from such activities in the time and motion study.

It must be remembered that the findings of this study are restricted to the routine and repetitive activities contained in the study and should not be applied to other members of the building service and maintenance staff who are not involved in such duties.

I feel that the findings of such a report will be of great value in determining budget requests involving building service and maintenance personnel. Certainly, it would be of great help, when new buildings and facilities are added, to show the extent to which one must add to the maintenance staff. In addition, it gives information that would indicate whether or not the buildings are properly staffed. If they are properly staffed, one has a right to expect a clean building. If they are understaffed, such a study would be of great value in asking for additional workers.

All maintenance activities were weighed in terms of the amount of time the various operations would take per week.

FOOD SERVICE FINANCE

in the small college

AURICE HUGULEY

Financial Secretary, Northwestern State College, Alva, Okla.

Essential to a well operated college food service is an attractive setting, which means such things as cleanliness, good ventilation and lighting.

IT IS DIFFICULT TO COMPARE FOOD service among colleges. There are about as many kinds of food service as there are colleges. One thing seems to be in common: the need for serving students with large appetites and limited pocketbooks. Since students attend college chiefly on savings of their parents or themselves, often supplemented by low-paid, part-time employment, student income is not likely to increase across the board with prices.

Our college dining hall had its beginning in 1938. Previously, budgeted food service seemed not to be needed. Money was paid in, meals were served, and money was left in the account at the end of the year. No one seemed too concerned. The only budgeting done on food service has been an estimate furnished the regents for higher education as a part of the biennial budget. This was necessarily a "guess-timate" rather than an estimate.

We follow the policy that a standard charge for food service be set and maintained on the school year basis. Prices can be lowered during the school year, but it is difficult to raise prices without creating mistrust and reactionary student criticism with resulting loss of volume. Our food service charge has always been made on the flat-rate basis. At one time we had varying prices for the five-day week and for the seven-day week. Because most of our students live within a 50 mile radius, we found the demand to be chiefly for five-day service. The extra clerical work and the negligence of students in giving proper notice when planning to be away caused us to make one charge, based on the approximate cost for five-day service with a slight margin, giving no refund or credit for the week end.

Our present system of charge is $162 a semester. Should a student wish to pay for the entire semester in one payment, a discount of $5 is given. A large percentage of students take advantage of the discount, while the others make the semester payment in four equal installments, at enrollment in September, October 1, November 1, and December 1. We consider the plan to be a complete success.

Statistics indicate that food rates throughout the country seem to have been fairly well equalized. Although the spread from $27 a month low to $75 high appears to be a wide range, the median charge in all types of schools ranges from $35 a month to $43 a month.

Board and room payments are made at the business office; at the time due, a daily list of those in good standing is furnished to the student cashier. She is asked to remind each student two times, and at that time the responsibility for collection reverts to the business office.

CASHIER TAKES INVENTORY

A student cashier, who is directly responsible to the business office, is employed at the dining hall. She accepts cash from those living outside the dormitories and indicates on a master list those students served who have paid the flat rate. This information is used to calculate the total meals served and to determine refund due. A student must be absent four consecutive days to be entitled to a refund and is not given a refund when away from the campus representing the school. The student cashier is responsible for taking the physical inventory of groceries at the close of each calendar month.

The dining hall manager is responsible directly to the president. Purchases of food, supplies and equipment are made by the manager-cook. A signed copy of each invoice is furnished by the manager to the business office. Checks are written by the business office.

Our entire system of reporting and accounting has been chiefly concerned with what has happened since there

Salads offer an opportunity to balance the excessive food cost of other parts of the main course.

All colleges face the need for serving students with large appetites and limited pocketbooks.

has not been a pressing need for budgeting and accounting.

A well operated college food service should have a threefold objective: good nutrition, protection of the student's dollar, and attractive atmosphere where the student can enjoy the company of friends and associates. Good nutrition includes good food, well chosen and well prepared, as well as a balanced diet. Protecting the student's dollar involves giving him more than he can get elsewhere for the same money, quality being equal. An attractive setting means such things as cleanliness, good ventilation and lighting, absence of excessive "clatter," and an atmosphere both friendly and welcoming. Secondary contributions of the food service may be in the field of public relations, as in serving special groups and educational conferences, and as a work experience program for students in home economics wishing to take further work in quantity cookery and food management. Good food and good service need not necessarily cost more than poor food and poor service.

CONTROL COSTS WITH RECORDS

Cost controls should not be regarded as a means of reducing the quality of the food served or the services rendered but should be used as a guide to management in preventing wastes of raw foods, labor and material. Records do not control costs, but management must control costs by the use of records.

Food cost controls may be divided into five major functions: production, quality controls, equipment and depreciation, employes, and reports and accounting.

Production involves three aspects, which are procurement, storage and inventory, and menu planning. Any food buying procedure requires a knowledge of quality and relative grades of the available foods, consistency of grades offered by each vendor, suitability of items to needs, and comparative prices of various brands available from vendors. Market conditions, price trends, and freight rates are important items that may be followed through current publications. Competitive buying is an advantage where possible, but quality is necessarily uppermost. Good buying is a blended application of everyday common sense, good business practice, and some knowledge of foods. The best way to obtain the best product from the funds available is through a system of specifications. Specifications covering foods are not intended as a cure-all for maximum buying efficiency. They do, however, assure a minimum buying standard and provide the foundation upon which to build for greater buying efficiency.

Upon receipt of food purchases, they should be checked for quality, condition, grade, size, count or weight, and price. At the time received each should be marked with date and price to facilitate inventory and pricing. Buying must be based on two factors, the need and the storage facility. Need likely will be based on experience of a previous period, with current factors considered. Inventory size will be determined largely by the volume of business, with care taken not to keep the working capital tied up in inventory. Good storage helps inventory taking, reduces the inclination toward pilferage, and keeps the old stock moving. A good storeroom cannot by itself make a food service, but a poor one can certainly break one.

The menu must have cost balance as well as nutrition balance. Overbuying and overproduction are two of the costliest errors that a manager may permit.

There are three fundamental points in menu planning: (1) Keep a record of the most popular dishes to reduce leftovers and to make profitable use of by-products; (2) watch the market for favorable prices on seasonable and profitable items; (3) use standard recipes for standardization of costs and quality.

DETERMINE PORTION COST

Standard recipes are the backbone of the food preparation control. One must know the cost of all dishes that might be served and do menu precosting. After determining portion cost it is important to see that uniform portions are served. All portions are to be accounted for all the way from kitchen to serving counter. We raise our eyebrows when the cashier is short in his cash but when the chef is short 10 or more hamburgers in a hundred pounds of meat, we say nothing.

The staff may have to work into precosting recipes gradually since some of it is done by guess. When standard recipes and menu precosting are initi-

M. A. BAPTISTA
American Asiatic Representation
Hong Kong, China

East is east

Sexton
Quality Foods

Half way 'round the world, East and West *do* meet, through Sexton's far-reaching service. Notable among the complete assortment of foods and supplies are Sexton canned fruits. Hand-picked in the fertile orchards of America, the tree-ripened fruit is carefully packed to retain its ambrosial flavor. Each can is brimming full, giving you at least one extra serving. East or West, you can't serve better!

JOHN SEXTON & CO. CHICAGO 1953

ated, a season of trial and error would be followed by a file of recipes made after a particular dish is found to be afforded.

Most fruits and fruit juices are health guards and offer little net profit, whereas cereals are considered money-makers because of low raw food cost and the volume of consumption. Egg dishes require control to be profitable. Breads and beverages are definitely in the money-making groups, as are good quality soups. Main courses as a group are money-losers. Vegetables and salads offer the food planner an opportunity to balance the excessive food cost of the other parts of the main course. The sale of cake with thick white frosting usually means a profit; this is true of desserts as a group.

MUST HAVE APPETITE APPEAL

Quality control includes supervision of work processes on a positive or preventive basis rather than on a negative or inspection basis. A menu must have appetite appeal and maintain an element of surprise in what is served. The food service cannot be a success if rightly referred to as the "beanery." The quality of service is not a joke. Above all, let it not be truthfully said by students, "Today is Thursday so we will have liver and bacon at the dining hall." Students love to "gripe" to anyone and everyone about anything and everything. If they get a good audience, the gripe becomes more powerful; if the audience is thin or disinterested, the gripe fades out and is followed by another idea. A possible solution to student approval of quality is a panel of a few students who prepare menu suggestions of what they like.

Constant effort is needed to analyze the most efficient use of space and equipment. Equipment records should be kept, including items of description, cost and date. A supplementary record of repairs on each item is of assistance; such a record would include the date, type of repair, and cost. It is well to oil and grease equipment on schedule and to check thermostatic controls regularly. It is common practice to make allowance in the operating budget for equipment depreciation and for replacement of small equipment. About 3 per cent is the usual allowance for replacement. The arrangement of equipment in functional units to allow a free flow of traffic from the center of preparation to the serving counter is of utmost importance.

The food service industry is especially vulnerable to employe attitudes. The idea with personnel is not to get as much work as possible out of each individual, but rather to have each employe cooperate to the best of his ability with every other employe in getting the work done. Employe relations should aim at job classification and rate adjustment in accordance, schedule of work, good supervision and training for particular work. Each employe should know what is to be done, by whom, the sequence, and the method accepted as well as the expected time the task should consume.

Most college food service units employ students on a part-time basis. The conduct of the students on duty is a direct responsibility of the manager, while the general conduct of all students in the dining hall is the responsibility of the dean of men and dean of women. The amount paid student workers varies greatly, as does the responsibility delegated to student employes. It is of great importance that a food service manager have complete jurisdiction and control in the matter of selection, evaluation and remuneration of employes.

Reports for food service should be simple, adequate and *used*. The operating statement should be a compass, charting the course, not a report of what has been done too late to correct any difficulty. Cost control is directly related to income rather than to cost. Any additional business done beyond the point at which cost and income converge produces the profit.

In order to achieve the effectiveness of a cost control system, these points are essential: (1) a system costing considerably less than the savings effected; (2) routine of the kitchen not hampered by the system procedures; (3) reports of cost compiled by business office; (4) sufficient detail to provide a basis for corrective measures. Such inefficiencies as overproduction, poor purchasing, waste in cooking or spoilage, and pilferage should be revealed by an adequate system. Paramount in all is that information be speedily gathered and relayed.

Reporting and accounting may be divided into three parts: (1) cash receipts control; (2) daily cost reports, and (3) comprehensive monthly, periodic and annual reports. Daily report data include sales, cost of food and food cost ratio, other costs, net result, and statistics on total meals served, average cash received, together with any special service for parties or banquets. Cumulative totals on the items make up the monthly report, together with a comparison with estimates and with the previous year's activities. It is helpful to figure percentages on all items of estimate, actual expenditure, and last year's comparison.

INCLUDED IN FOOD SERVICE

A classification of expenses for food service includes food cost, salaries and wages, uniforms, laundry, fuel for cooking, electricity and lighting, travel, ice and refrigeration, menus, stationery and printing, cleaning supplies, advertising, telephone and postage, plants and decorations, federal, state and city taxes if levied, china and glassware, linen, silverware, kitchen utensils, equipment, repairs, rent, water, heat, insurance, depreciation, amortization of improvements, cleaning and paper supplies.

Food costs usually are listed in breakdown as miscellaneous groceries, bakery goods, dairy products, meats and fish, and fresh fruits and vegetables. If raw food costs exceed 55 per cent, an analysis should be made to determine whether prices need to be raised, portions served are too large, undue waste is present, raw food has been improperly purchased or there is poor management of leftovers.

A school food service should average 10 per cent lower in prices than those charged in comparable feeding establishments with quality constant. Commercial cafeterias aim at a food cost of from 43 to 45 per cent of sales, with labor running from 28 to 33 per cent. Profit should be the result of efficient, carefully planned management with a student body satisfied as to the quality, quantity and price of food service.

Cost control is only one part of many managerial controls needed for successful food operation. If one has good management, he can have a good cost control system. But without good management, any system is only another record. Above all, we should never be completely satisfied. If we have reached that point, we are through.

MANY FOOD SERVICE OPERATORS WERE DISMAYED WHEN HOTPOINT INTRODUCED THE SUCCESSOR TO THE FRY KETTLE

...they saw in one glance that the Mark 313 Deep Fat Frying Machine makes even their most recently purchased equipment out-of-date*

...but they were delighted when they realized how it will cut their costs!

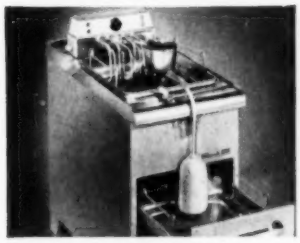
*Mark 313 means 313 large 2-oz. orders of potatoes hourly from just 28 pounds of fat.

ONLY THE MARK 313 DEEP FAT FRYING MACHINE—
turns out 313 large 2-oz. servings of french fries per hour in 28 pounds of fat! Only with the Mark 313 can you drain and strain the fat, make a complete fat change-over, and clean the equipment completely—all in less than 10 minutes!

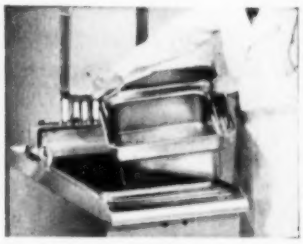
Almost unbelievable, isn't it? Yet, with a fat-capacity of only 28 lbs., Hotpoint's new MARK 313 Deep Fat Frying Machine produces . . . start to finish . . . 313 big 2-ounce servings of french fries per hour! Can save you up to $439.50 in fat costs yearly.

93% efficiency (twice that of average kettles) and new high-powered Calrod units that preheat 28 lbs. of fat to 375° in a record 5 minutes make this possible. Virtually instantaneous temperature recovery is now assured for the first time in commercial cooking history!

Your present Fry Kettle cannot possibly equal this MARK 313—even in many cases where present equipment is double or three times the size! You owe it to yourself to investigate the MARK 313 at once!



World's fastest fat cleaning system!
Miraclean system semi-automatically drains all fat from fat container. In less than 5 minutes, fat is cleaned and strained into in-a-drawer spare fat container. Lift out spare container and put into use immediately.



Cleaning is so easy!
Swing Calrod® immersion heating unit out of fat to locked upright position. Lift out fat compartment, carry to the sink, and wash like an ordinary cooking pan—in less than 5 minutes.

Your equipment may be "new" but it's not modern unless it's

Hotpoint ALL-ELECTRIC *Commercial Cooking*

HOTPOINT CO. A Division of General Electric Company

Hotpoint Co., Commercial Equipment Dept.
211 South Seeley Avenue, Chicago 12, Ill.

HOW LONG SINCE YOU *Looked* AT YOUR KITCHEN

☐ Please send us full information on the Hotpoint *Mark 313* Deep Fat Frying Machine

☐ Please send a representative to demonstrate and explain the Hotpoint *Mark 313* Deep Fat Frying Machine

NAME _____

ADDRESS _____

CITY _____ COUNTY _____ STATE _____

NEWS

Postpone Enforcement of R.O.T.C. Plan . . . Business Management Institute Begins July 27 . . . Veterans' Enrollment Doubles in 1953 . . . Revise V.A. Regulation for Cooperative Courses . . . Ohio College Builds Out of State

Enforcement of R.O.T.C. Plan Postponed a Year

WASHINGTON, D.C.—According to an announcement by the Defense Department, the army has postponed for a year enforcement of its plan to concentrate its R.O.T.C. program in colleges and universities offering four-year courses leading to academic degrees.

According to latest information, military institutes and junior colleges may continue until the end of the 1954-55 school year to enroll students in the first year of R.O.T.C. training. Junior colleges also will be permitted to enroll students who have completed military science course II in the third course.

The army stated that the postponement was prompted by the desire to enable the schools to honor commitments made to students when they enrolled.

Negro Applies for Study at University of South

SEWANEE, TENN.—Officials of the University of the South reported recently that a Negro clergyman of the Protestant Episcopal Church had applied for admission in the five-week graduate study class of its school of theology which begins on July 29. This announcement followed by one day the instruction received by university officials from the trustees to the effect that they must disregard racial considerations in connection with applications for admission.

The question of admitting Negro theology students at the university, which is owned by 22 dioceses of the Protestant Episcopal Church, developed into a bitter controversy a year ago when the trustees voted approval of the resolution that held that "the encouragement or the enrollment of Negro students now is inadvisable."

In protest against such action by the trustees, eight faculty members, seven of them clergymen, resigned from the school of theology. Last February, the Very Rev. Dr. James A. Pike, dean of the New York Cathedral, rejected an invitation to deliver the baccalaureate sermon and accept an honorary degree at the university's graduation ceremonies because of the racial discrimination ruling by the trustees a year ago.

45 Seek Licenses for Educational TV

WASHINGTON, D.C.—According to a report by the National Citizens Committee for Educational Television, organizations in 45 communities had applied for noncommercial TV licenses as of June 2, and many more applications are in the final stages of preparation.

The committee emphasized that the Federal Communications Commission still is accepting applications for noncommercial educational television permits.

Sen. Hill Amends Bill

WASHINGTON, D.C.—An amendment to S. 1901 has been introduced by Sen. Lister Hill of Alabama and 25 other senators that would authorize all federal funds received from royalties from oil beyond historic state boundaries to be used after the present emergency for grants-in-aid to education. It is anticipated by supporters of the bill, since the major controversial feature of ownership of oil within historic state boundaries has been resolved, that the bill with the educational amendment will be enacted. It is estimated that the funds made available to education by this legislation will amount to many billions of dollars.

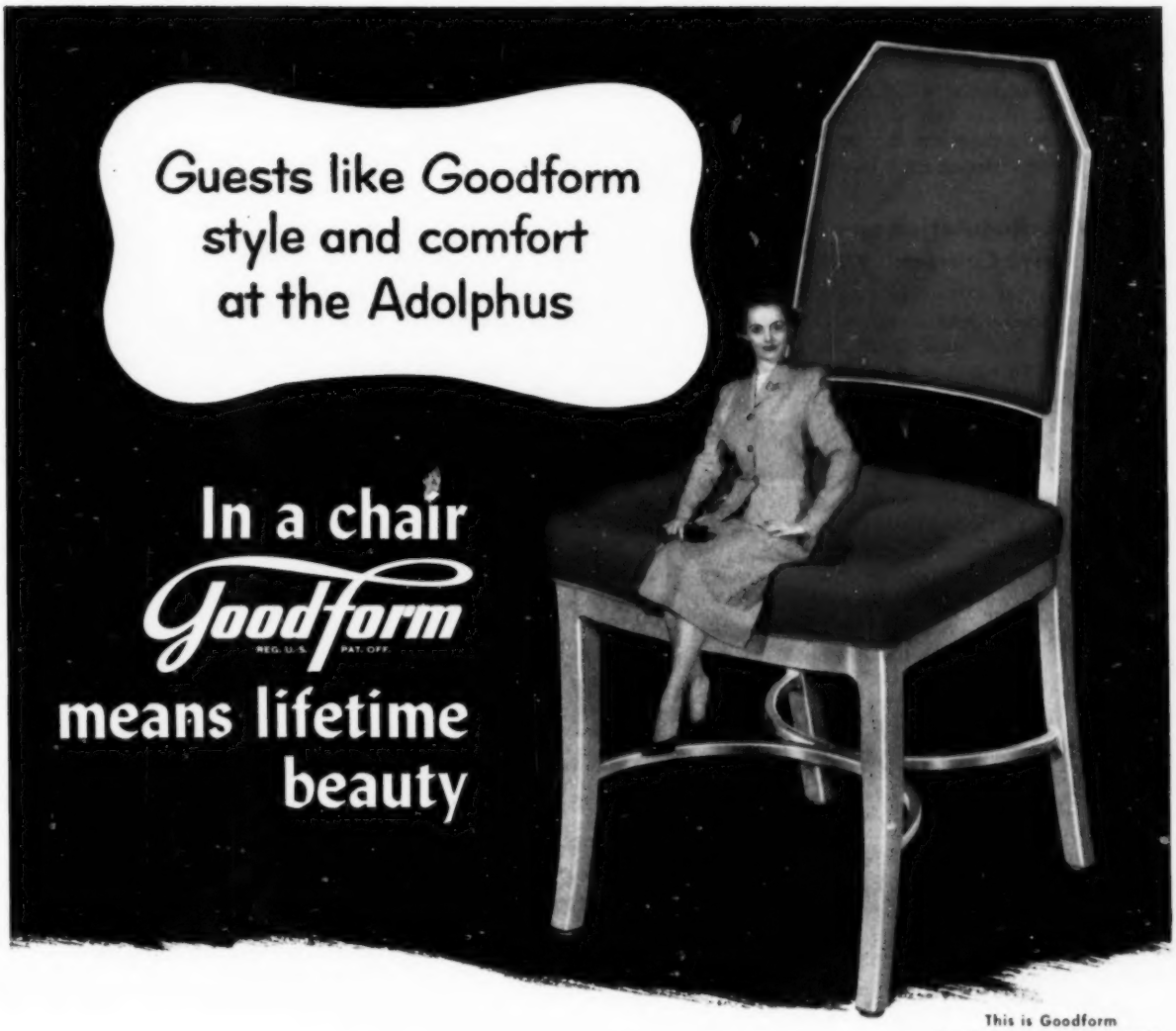
S.A.C.U.B.O. Offers Course in Business Management

LEXINGTON, KY.—The University of Kentucky will conduct a college business management institute on the campus from July 27 through August 1, which will be open to business officer personnel of colleges and universities in the southern part of the United States. The program is being introduced and sponsored by the Southern Association of College and University Business Officers.

Subjects to be taught at the institute will include instruction in administrative organization, basic college management, budget preparation and control, institutional accounting and reporting, purchasing technics, buildings and grounds operation and maintenance, nonacademic personnel problems, public relations, and current national problems in education.

Those who will be serving as faculty members for the institute include: Raymond W. Kettler, controller of Purdue University, who will instruct in basic college management; Charles W. Hayes, director of purchasing at Emory University, who will cover purchasing technics; E. B. Farris, chief engineer at the University of Kentucky, who will instruct in buildings and grounds operation and maintenance; Kelly Thompson, assistant to the president at Western Kentucky State College, who will handle public relations, and Granville Thompson, specialist for college business management from the U.S. Office of Education, who will lecture on current national problems in education.

Dean C. C. Carpenter, Dr. Robert D. Haun, Prof. Wendell E. Beals, and Prof. Frank G. Coolsen, all of the University of Kentucky, will lecture in allied subjects, such as accounting, auditing and so forth. Frank. D. Peterson, controller of the University of



This is Goodform
Institutional Chair No. 4718

"EVERYTHING FOR THE GUEST" is no idle promise of the Adolphus Hotel in Dallas, Texas. That's why hundreds of these Goodform aluminum chairs can be found in ballrooms, meeting rooms and throughout the hotel.

Adolphus guests appreciate the classic lines of Goodform chairs and enjoy their pleasant comfort and ease of moving.

And, naturally, the management is *further* pleased by the simple and inexpensive maintenance of these handsome chairs. Light to handle, both the fireproof aluminum frames and top-grade plastic upholstery clean quickly and effortlessly with just soap and water. And Goodform's solidly welded strength prevents loosening of joints and eliminates costly breakage.

The comfortable, beautiful and durable Goodform solves all your seating problems. See Goodform Aluminum chairs in the showroom of your nearest dealer. Or write us for a free catalog illustrating our many models in full color. The General Fireproofing Company, Dept. C-19, Youngstown 1, Ohio.

GOODFORM ALUMINUM CHAIRS

GF
1902 1953

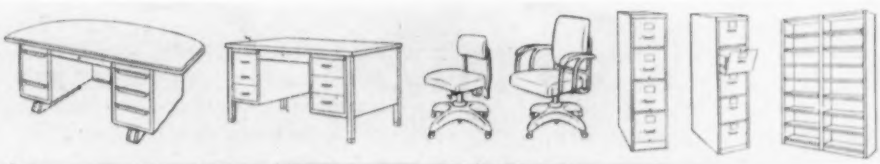
GENERAL FIREPROOFING

Foremost in Metal Business Furniture

DEALERS THROUGHOUT THE WORLD

©GF Co. 1953

There is a complete line GF metal furniture – desks, tables, chairs, files and shelving



Kentucky and past president of the Southern Association of College and University Business Officers, will act as consultant during seminar periods of the business management institute.

New V.A. Regulation on Cooperative Courses

WASHINGTON, D.C.—The Veterans Administration on June 10 announced a change in V.A. regulations under Public Law 550 which is of particular concern to colleges and universities offering cooperative courses.

According to available information, the revised regulations relating to colleges maintaining cooperative programs provides that "for those periods (equivalent to at least a semester in length) occurring at the beginning and at the end of the course that are devoted exclusively to classroom instruction . . . the veteran shall receive the institutional rates of education and training allowance," *viz.* $110 per month if the veteran has no dependents, $135 per month if he has one dependent, $160 if he has more than one dependent.

During the alternating period phase of the cooperative program the veteran will receive the $90 per month, $110 per month, $130 per month rates set forth in Public Law 50. As stated in the June 10 announcement, these lower rates were established in the law "since veterans pursuing this type of course receive additional income in the form of wages during the occupational experience phases of their programs.

"If the veteran interrupts his training under the law for that part of a cycle devoted to occupational experience, he shall not receive any education and training allowance during the period of such interruption, and the fact of such interruption will not operate to make the veteran entitled to the rate set forth in V.A. Regulation 12052 (A) for the part of the cycle devoted exclusively to academic instruction."

U.I. Business Office Celebrates 35th Year

URBANA-CHAMPAIGN, ILL.—Members of the University of Illinois business office staff and former "alumni" now active in other fields recently participated in the 35th annual dinner of the organization. Lloyd Morey, comptroller of the University of Illinois since 1916, was the senior officer in attendance at the event.

In speaking before the group, which included former members of the business office, such as Arthur Lincicome, assistant controller of the University of Chicago; Gail A. Mills, controller, Princeton University; Raymond W. Kettler, controller and business manager of Purdue University, Mr. Morey stated that there are four things that make college and university business administration a profession of opportunity and dignity. He named them as "having a job that is always challenging and compelling; serving in a great cultural and social nonprofit enterprise; having continual contact with many great and near great, and having and keeping friends."

Mr. Morey called attention to the fact that of the many in attendance at the 1953 dinner, there were six persons who had been in the original group in 1919. Only two, however, had continued in service with the university: M. M. Edwards, director of purchases, and Mr. Morey himself.

Join With Illinois Tech in Combined Program

CHICAGO.—Illinois Wesleyan University at Bloomington and St. Mary's College at Winona, Minn., are the two most recent liberal arts colleges to join with Illinois Institute of Technology in offering a combined educational program in liberal arts and engineering. Addition of the combined program at Illinois Wesleyan and St. Mary's brings to 17 the number of schools participating with Illinois Tech in its educational plan.

Under this plan students attending the liberal arts colleges study at those colleges for three years and then spend two years at Illinois Tech. Upon completion of the five-year term program, they receive a bachelor of arts degree from one of the affiliated institutions, and a bachelor of science degree in a field of engineering from Illinois Tech.

Dr. John Day Larkin, dean of liberal studies at Illinois Tech, declares that the combined program has been developed to help meet the country's need for trained engineers with a background of general knowledge. The program enables students to obtain a wide background in the humanities before specializing, he said.

Veterans' Enrollment Doubles in Four Months

WASHINGTON, D.C.—According to recent figures released by the Veterans Administration, veterans' enrollments under the new Korean G.I. bill have more than doubled during the first four months of 1955. The number of veterans in training under the nine-month-old law stood at 131,000 as of May 1. At the beginning of the year, the enrollment figure was 60,000.

According to V.A. predictions, it is expected that the number will substantially increase in the months ahead. Up to this time nearly 280,000 Korean veterans have filed application for training under the new G.I. bill. It is anticipated that many of these veterans, as well as many who have not yet applied, may be waiting for fall terms before they begin their education.

The May 1 registration figures indicate that Korean veterans are enrolled at every educational level from grade school through college. Fifty-eight per cent, or 76,000, were studying in colleges and universities; 26 per cent, or 35,000, were taking their training in all sorts of schools below the college level; 13 per cent, or 16,500, were training on the job, and 3 per cent, or 3500, were enrolled in farm training.

The grand total of all veterans in training, including those enrolled under the Korean G.I. bill, is more than 711,000. This includes some 550,000 World War II veterans who are still in classrooms and at the training bench under the original G.I. bill and nearly 30,000 disabled veterans of World War II and Korea who are taking vocational rehabilitation training under Public Law 16.

Ohio College Builds on Florida Property

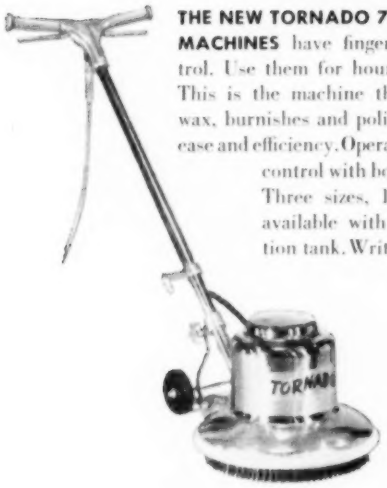
YELLOW SPRINGS, OHIO.—The Antioch College Foundation broke ground recently for a $2,000,000 drive-in shopping center at Fort Lauderdale, Fla., on 40 acres of land that originally cost less than $300. The 40 acre site is part of 228 acres, originally swampland, left to Antioch College as endowment by Hugh Taylor Birch at his death in 1943.

According to Homer C. Corry, Springfield attorney and chairman of the Antioch foundation, financing plans

SCHOOL CLEANING IS PLAY THE TORNADO® TWINS WAY

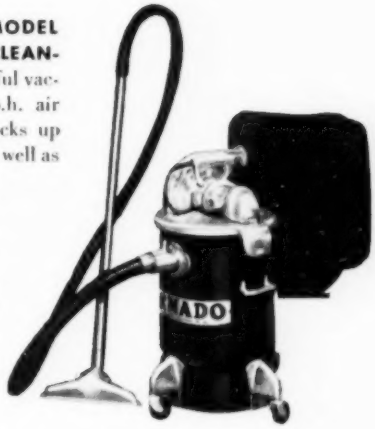
You get faster, more thorough cleaning per man hour with Tornado

(Just Released)



THE NEW TORNADO 70 SERIES FLOOR MACHINES have fingertip balance control. Use them for hours without tiring. This is the machine that scrubs, strips wax, burnishes and polishes . . . all with ease and efficiency. Operate the dual switch control with both or either hand. Three sizes, 14", 16", and 18" available with or without solution tank. Write for bulletin 619.

TORNADO MODEL 92 SCHOOL CLEANER is the powerful vacuum (320 m.p.h. air speeds) that picks up dust and dirt as well as liquids and scrubbing solutions. Follow every scrubbing job with Tornado 92 and you are ready for immediate waxing.



Tornado also is used as a blower-sweeper for papers and debris, a shoulder type vacuum, a portable electric blower or an insecticide spray. Write for bulletin 600.

The Tornado Twins — an unbeatable combination for cleaning speed

BREUER ELECTRIC MFG. CO.

5098 North Ravenswood Avenue • Chicago 40, Illinois

Design··· ALWAYS TELLS...

IN BETTER SEATING BY Arlington

There is something about a classroom equipped with Arlington Seating you instinctively like.

Perhaps it is the symmetry of line. Perhaps it is the warmth of the finishes or possibly visible evidence of quality in every detail.

Your impression is not just a happy coincidence but the natural response to seeing anything that has been exquisitely and perfectly made.

Arlington school seating design is one of the important points you will want to remember when you next order new or replacement equipment. For information about the complete Arlington line write for Catalog No. 53.

Arlington SEATING CO.

ARLINGTON HEIGHTS, ILLINOIS

NEWS. . . . . .

are completed and it is hoped that the regional shopping center will be completed by December 1. The project is being financed by loans and the utilization of proceeds from the sale of lots on other portions of the Birch tract. Total cost of the project is $2,100,000. This amount will cover the costs of three two-story buildings, which together will total 15,000 square feet, and the landscaping and parking area. The latter will provide a minimum of 5 square feet of parking space to every foot of floor space.

Minnesota Students Rate Arts Professors High

MINNEAPOLIS.—According to a recent survey completed by Kenneth E. Clark, associate professor of psychology, arts college professors at the University of Minnesota rate high with their students. In the survey they were graded as good, very good, or outstanding in all-round teaching ability by 88 per cent of the students. They also were rated high for their friendliness and willingness to give personal help. Lower ratings were given to value of the text in relation to the course, fairness of grading policies, and use of class time.

The survey was based on 14,050 reports that were turned in by 450 classes by the college of science, literature and arts of the university. In regard to all-round teaching ability, 10.7 per cent of the students ranked their professors as adequate instructors, and only 1.4 per cent marked them poor. Thirty-six per cent of the students said their instructors were extremely friendly in or out of class, 43.2 per cent indicated they were quite friendly, and 15.9 per cent marked them as rather friendly. In response to the question of personal help, only 1 per cent of the students said they could get none from the professor or his assistants.

A majority of arts college students—87.4 per cent—thought their courses were just about as interesting, somewhat more, or much more interesting than they expected.

In the survey, students put down their opinions on how clearly subject matter was presented in lectures, how well teachers adjusted to the class level of comprehension, how well professors knew their subject, how clearly students' responsibilities toward the

35mm camera on B&L Model EDN Research Microscope

If you can see it with your microscope, you can photograph it . . . with the

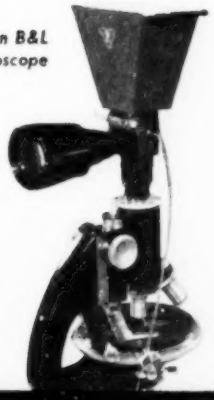
NEW

BAUSCH & LOMB

EYEPIECE CAMERA

Photograph *what* you want . . . *whenever* you want . . . with *your* microscope! You've got your own low-cost photomicrographic department at your fingertips with the efficient new Bausch & Lomb Eyepiece Camera. Viewing head and camera fit microscope eyepiece tube . . . enable you to make your own transparencies, projection slides, work-in-progress records.

- **Choice of cameras**
  - **35mm roll film unit**
  - **2¼" x 3¼" film pack or cut film unit**
- **Color and black and white**
- **Simultaneous focus of visual and film images provides top quality**



2¼" x 3¼" camera on B&L Model E Research Microscope

1853/1953 INTO A NEW CENTURY OF OPTICAL PROGRESS

BAUSCH & LOMB CENTENNIAL

WRITE for demonstration and complete information. Bausch & Lomb Optical Company, 76719 St. Paul St., Rochester 2, N. Y.

Bausch & Lomb *Eyepiece* Cameras

course are defined, how much actual outside work is assigned for the course, and whether or not they would recommend it, in terms of content, to a friend. Two pages of each student report included a check list of suggestions for the course and instructor for more detailed comment.

The survey was carried out under sponsorship of the arts college committee on improvement of instruction and the arts intermediary board, a representative student group.

N.Y.U. Acquires More of Washington Square

NEW YORK.—New York University continues to acquire property in the Washington Square area with the result that at the present time the university controls 80 per cent of the square.

Two buildings at the north and south ends of the square have been bought as investment property, according to a recent announcement by LeRoy E. Kimball, vice chancellor and controller of the university. With the current purchase, N.Y.U. either owns or controls property on nine of the 10 blocks facing the square. On the 10th block is a building owned by the Roman Catholic Archdiocese of New York and used as a center for Catholic students at the university. The latest purchases followed on the heels of a recent purchase of the Holley Chambers and the Holley Hotel. Residents of the area often have complained about the university's expansion around the square, contending that Washington Square Park was fast becoming a college campus.

SEAL·O·SAN.
GYM FLOOR FINISH

Your maintenance men will like this labor-saving guide for refinishing and lining gym floors. There are 12 easy-to-follow diagrams and descriptions. Also complete information on the preparation of the floor surface before refinishing. Every job is explained step-by-step. It will pay you to get a copy before refinishing time. Write today . . . it's free!

MAIL COUPON NOW!

HUNTINGTON LABORATORIES, INCORPORATED
DEPARTMENT E • HUNTINGTON, INDIANA

☐ Please send me your new folder "The Key to Better Gymnasium Floor Finishing."

NAME POSITION
SCHOOL
CITY STATE

Optometry College Will Relocate Student Housing

CHICAGO.—The first step in the relocation program of the Northern Illinois College of Optometry in Chicago will be made this fall when student housing will be located in a new area of the city.

Heretofore all single students were required to live in the college residence hall. A decision to discontinue use of the present residence hall was made at a recent meeting of the board of trustees. One of the principal reasons for the move that has been under consideration for some time is that the residential area for many blocks north and west of the college has deteriorated rapidly within the past several years. According to the report, students as well as parents have been greatly concerned about the situation. The neighborhood situation, however, was something over which the college had absolutely no control. However, the neighborhood does provide excellent clinical material, enabling each student who graduates from Northern Illinois College of Optometry to take care of not less than 100 patients.

The selection of a new site has not yet been made.

Amendment to H.R. 5690

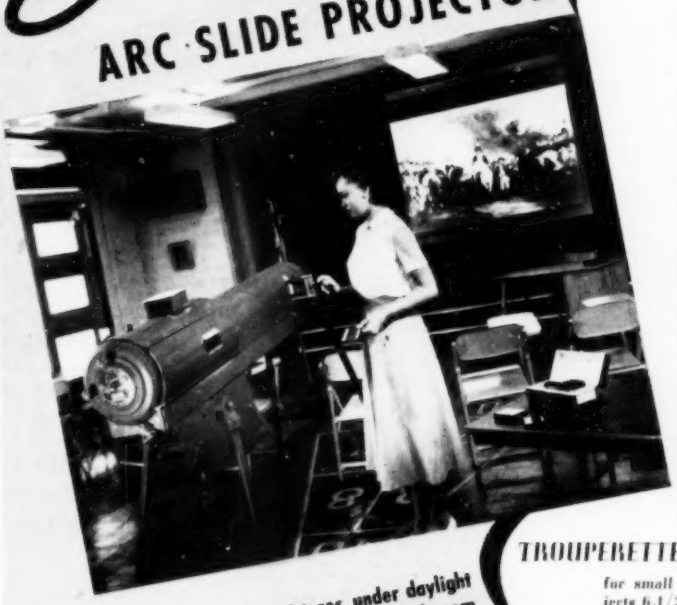
WASHINGTON, D.C.—On June 17, the House of Representatives adopted an amendment to the second Independent Offices Appropriations Bill (H.R. 5690) reducing the monthly payments to educational institutions under Public Law 550 from $1.50 to $1 per veteran enrolled. The reduction is to be effective between Sept. 1, 1953, and June 30, 1954.

PROJECTS BRILLIANT PICTURES

OF UP TO THEATRE SIZE

EVEN IN DIFFICULT-TO-DARKEN CLASSROOMS AND AUDITORIUMS!

The New Strong UNIVERSAL High Intensity A.C. ARC SLIDE PROJECTOR



Especially useful in projecting pictures under daylight or artificial lighting conditions where a darkened room is not desirable.

Entirely safe in the hands of a layman, it is easier to operate than the average 16mm. projector. Simply plug into any 110-volt A. C. convenience outlet. The motor-driven arc will project continuously for 80 minutes without retrimming.

The Strong Universal Model No. 44,000 projects 3-1/4" x 4" slides. Comes complete with blower, slide carrier, power transformer and arc lamphouse, with motor-fed carbons. Adaptations permit the projection of 2" x 2", or 4" x 5" slides. Lenses as required for other than customary installations are available.

ONLY Strong SPOTLIGHTS AFFORD ALL THESE ADVANTAGES

- An abundance of exceedingly bright, quiet, flickerless light.
- Sharp edge, head spot to flood.
- No heavy rotating equipment required. Simply plug into 110-volt outlet.
- Ready portability. Mounted on casters. Easily disassembled for shipping.
- Two-element, variable focal length objective lens system.
- Silvered glass reflector.
- Horizontal masking control angles 45 degrees in each direction.
- Fast operating 6 slide color boomerang.

TROUPER HIGH INTENSITY ARC SPOTLIGHT

for large auditoriums. Adjustable, self-regulating transformer in base. Automatic arc control. A trim of carbons burns 80 minutes.

TROUPERETTE INCANDESCENT SPOTLIGHT

for small auditoriums and schools. Projects 6-1/2 times brighter head spots than any other incandescent spotlight. Utilizes all the light through most of the spot sizes as contrasted to spotlights which vary spot size solely by irising, thus losing substantial light.

See your theatre, school or stage equipment dealer, or use coupon to obtain free literature.

THE STRONG ELECTRIC CORPORATION

"The World's Largest Manufacturer of Projection Arc Lamps"

50 CITY PARK AVENUE — TOLEDO 2, OHIO

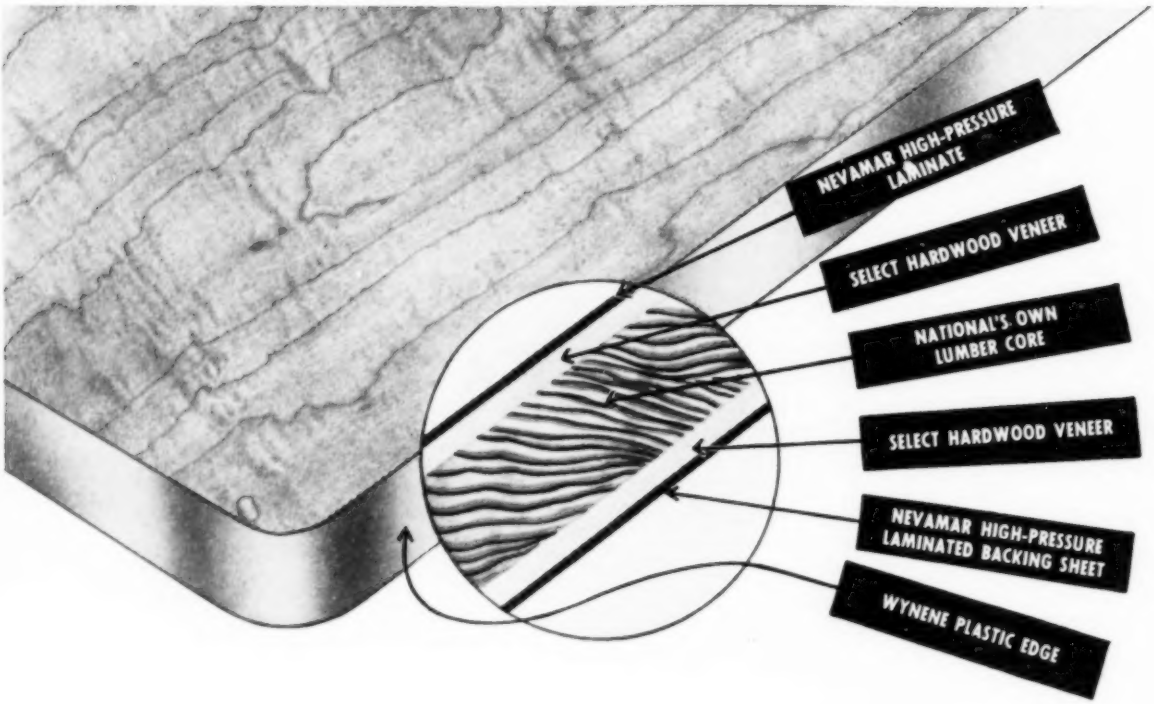
Please send free literature and prices on the ( ) Strong Trouper Arc Spotlight; ( ) Strong Trouperette Incandescent Spotlight; ( ) Strong Universal Arc Slide Projector.

Name _____

Street _____

City & State _____

Name of Supplier _____



ONLY A NATCOLITE SCHOOL TOP HAS THESE THREE ASSETS:

1. NEVAMAR high-pressure laminated surface

A super-hard top and backing sheet assures maintenance-free service . . . never needs re-finishing. In mellow maple grains specially developed for low light reflectance, it is a truly sanitary work surface.

2. Precision-balanced, warp-proof core

Just as important to the life of the top is National's own special inner core which makes a superior foundation for the laminates and creates a perfectly-balanced, warp-proof unit.

3. Wynene plastic mar-proof edge

Completely seals the top on all sides for added protection against lateral impact. Won't crack or chip.

Write for complete brochure of the National School Line.

NATIONAL SCHOOL FURNITURE COMPANY

Division of National Store Fixture Co., Inc

ODENTON, MARYLAND

NEWS. . . . . .

Study Personality Characteristics That Relate to Success

ANN ARBOR, MICH.—Elmer D. Mitchell, director of men's physical education at the University of Michigan, recently stated that, on the basis of a profile study in the interests of all freshmen male students entering the university since 1927, socially minded students have their greatest success as journalists, lawyers or businessmen.

Dr. Mitchell's profile study was originally planned to determine courses for the physical education curriculum but the study proved so successful in relating personality characteristics to professional success that it is being continued.

As an example, the study shows that journalists and lawyers have a strong dislike for science and lean more toward the social studies. Both prefer leisurely sports, such as golf, and have a great liking for cultural activities.

Contrasting this, engineers and foresters are alike in favoring camping and hunting, and the engineering students have a strong preference for experimental hobbies. Their favorite subjects usually turn out to be mathematics and physics.

Students interested in forestry, Dr. Mitchell stated, show a strong inclination toward collecting hobbies and such scholastic fields as botany and zoology. More than any other group, they are likely to have been boy scouts.

Architects and musicians are revealed to have limited fields of interest; within this limited scope they gain great satisfaction. Musicians exhibit few interests other than music or related cultural activities, although they take an active interest in church work.

Big Building Program at East Carolina State

GREENVILLE, N. C.—East Carolina State College has recently completed an extensive construction program of more than $4,000,000, which provided for a physical education building, laboratory school, gymnasium, theater, men's residence hall, a teachers' apartment-dormitory, a home management house, and a grounds building. A new library is now under construction.

The state legislature recently appropriated $1,938,000 to build a men's

Instead of costly retyping

. . . use your photocopy machine

It's designed to eliminate errors — assures you *100% accurate copies of any document every time.* And in 9 cases out of 10 your photocopy machine delivers these error-free copies at a fraction of the cost of retyping a document and checking it for mistakes.

It will pay you to put your reliable photocopy machine to work on a full-time basis *serving all departments.*

For the best photocopies, use Kodagraph Contact Paper

This outstanding paper is made by Kodak for use in all types of contact photocopiers. It reproduces all documents in dense photographic blacks, clean whites . . . with new sparkle and legibility. And it's easier, more economical to use—no more split-second timing or trial-and-error testing. *Order it* . . . and see for yourself.

Kodagraph Contact Paper

"THE BIG NEW PLUS" IN THE OFFICE COPY FIELD

Mail coupon for free booklet

6

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Gentlemen: Please send me a copy of "Modern Drawing and Document Reproduction" . . . your new, free booklet giving full details on Kodagraph Contact Paper.

Name _____

Department _____

Company _____

Street _____

City _____ Zone _____

State _____

Kodak
TRADE-MARK

and women's residence hall, to convert the old gymnasium into a college union, and to remodel two other buildings into facilities for new uses.

$25,000,000 Building Program Made Known

BROOKLYN, N.Y.—St John's University recently announced a $25,000,000 building program to be completed in 1970. This will give the university a new campus with 13 buildings on the site of the 100 acre Hillcrest Golf Club in Jamaica, Queens, and expand its facilities in the Borough Hall section of Brooklyn.

The Hillcrest Golf Club, which has been operated as a public golf club, will be closed at the end of the year. The university has owned the golf club since 1936.

According to the Very Rev. John A. Flynn, president of the Roman Catholic institution, a major portion of the funds must be raised by public subscription but such a campaign would not be undertaken until the Queens campus is well under way.

Princeton's 1953 Memorial Fund Totals $215,208

PRINCETON, N.J.—A total of 587 members of Princeton University's class of 1953 have taken out memorial insurance policies with a combined value of $215,208 at maturity, according to Samuel Y. Gibbon Jr., director of the class memorial fund drive.

The policies, which will mature in 25 years, have been presented to the university in memory of three members of the class who have died since matriculation.

The memorial fund drive, conducted annually by the graduation class since 1916, established records this year both for percentage and total number participating. According to reports, 93 per cent of the class, including 132 men who have left Princeton to serve in the armed forces, subscribed to the fund.

Deferred Payment Plan Helps Clarkson Students

POTSDAM, N.Y.—F. Gordon Lindsey, director of Lewis House and director of freshman personnel at Clarkson College, has advised incoming students of a new plan of deferred payment of college costs through the Midland Trust Company.

The low-cost installment provision will make it possible, for those who need it, to pay board and tuition by monthly installments for one year at the interest rate of 2¾ per cent.

A part of the plan adopted by the college decrees that all freshmen will eat in the Lewis House (new college union) cafeteria at the cost of $225 per semester. There will be no provision for students to purchase meals at a daily rate, and meals will be provided on a seven days per week schedule.

Military Academy Buys 20 Room Mansion

PHILADELPHIA.—Valley Forge Military Academy recently acquired the 20 acre Waldheim estate at a cost "in excess of $100,000."

Maj. Gen. Milton G. Baker, superintendent of the school, announced that the academy would spend $400,000 to convert the mansion into suitable living quarters for about 60 cadets. A conversion of the site is part of a $1,000,000 building program that was undertaken by the military academy on June 1.

The Waldheim estate, opposite the academy's 132 acre establishment, was the home of Mrs. Ada Smith Sayen, who died in February at the age of 92 years. Except for a few servants and an occasional visit by relatives, she lived alone in the 20 room mansion for 20 years. Her husband, William Henry Sayen, an industrialist and politician, died in 1921.

GIFTS AND BEQUESTS

• **Cornell University** received from the Statler Foundation cash and stock totaling $365,000 to begin an endowment of $1,250,000, the income of which would be devoted to the maintenance of Statler Hall, the $2,550,000 building for the hotel school erected by the foundation on the campus at Ithaca, N.Y.

• **Adelphi College,** Brooklyn, N.Y., recently received a check for $27,500 from the estate of Mrs. Kate Louise Hodges Williams. This is believed to

DESIGNERS—CONSULTING
ENGINEERS
✶ PLANT LAYOUTS • • ESTIMATES
✶ INVESTIGATIONS & REPORTS
✶ SUPERVISION OF CONSTRUCTION
STADIUMS • GRAND STANDS • FIELD HOUSES
AIR CONDITIONING SYSTEMS • LABORATORIES
INDUSTRIAL BUILDINGS • BRIDGES • GARAGES
THE OSBORN ENGINEERING COMPANY
7016 EUCLID AVENUE CLEVELAND 3, OHIO

"Libbey Durapress Sherbets...
give us an attractive, economical service"

W. B. Williamson

BLACKHAWK HOTELS COMPANY

Executive Offices
BLACKHAWK - IOWA

Libbey Glass
Toledo 1, Ohio

Gentlemen:

As you know we have standardized on Libbey Heat-Treated Tumblers and Stemware in our Six hotels.

This letter is to tell you how satisfied we are, too, with your new line of Durapress sherbets. We find these sparkling glass sherbets make our Foods look more appetizing...give us a sherbet service that is both attractive yet economical.

We intend to adopt them as standard equipment in our chain.

Cordially,
W B Williamson
W. B. Williamson
General Purchasing Agent

Libbey "Durapress" sherbets are available in two sizes:
No. 5102 3½ oz.
No. 5103 4½ oz.

Make your appetizers and desserts look more tempting by serving them in sparkling glass . . . by serving them in Libbey "Durapress" sherbets. They are the most practical, dual-purpose sherbets on the market today.

Made of Libbey's regular high-quality glass, these sherbets take high sterilization temperatures in stride . . . stand up to the knocks of hard, everyday usage.

Libbey "Durapress" sherbets have a heavy glass base, modern shape, and appealing, easy-to-clean contour. "Durapress" sherbets are low in cost, yet amazingly strong and durable.

Your Libbey supplier is ready with samples and prices. See him or write direct to Libbey Glass, Toledo 1, Ohio.

Good food, tastefully prepared, and attractively served has long been a Blackhawk tradition. Here is their dessert table for their famed Sunday Smörgasbords.

LIBBEY GLASS "Durapress" Glassware

ESTABLISHED 1818

Libbey Durapress

LIBBEY GLASS, Division of Owens-Illinois Glass Company, Toledo 1, Ohio

make hallways say, "Come in!"

new Guth V·C·U

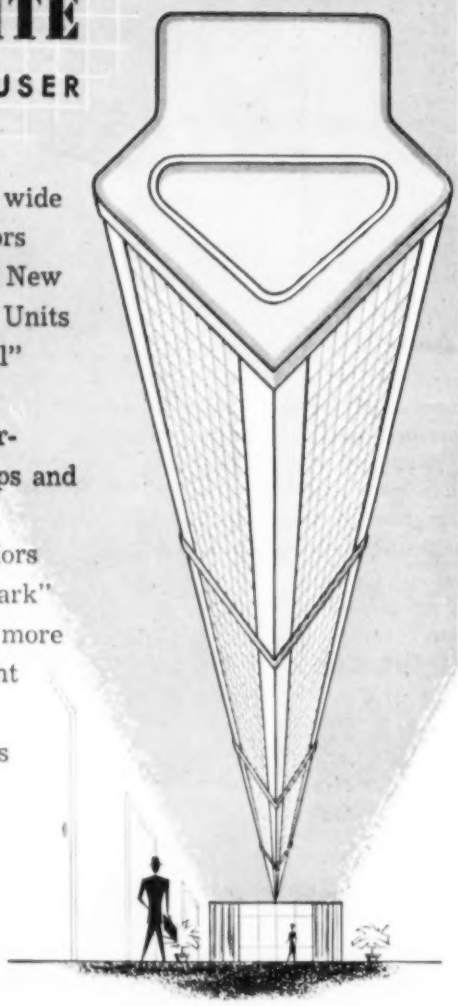
"V" CORRIDOR UNIT

with

GRATELITE*

LOUVER-DIFFUSER

At last—you can fill wide hallways and corridors with practical light! New Guth "V" Corridor Units provide "wall-to-wall" illumination. The GRATELITE Louver-Diffuser shields lamps and is easily maintained. Hallways and corridors "come out of the dark" and turn into safer, more cheerful lines of light that guide the eyes and the step. V·C·U's available in 4′ & 8′, 1 & 2 light models.



*Patents Pending
Trademark Registered

LEADERS IN LIGHTING
Guth
SINCE 1902

Write today on your letterhead for complete information.

THE EDWIN F. GUTH CO. ST. LOUIS 3, MO.

NEWS. . . . . .

be the largest single bequest of money received by the college.

• **The University of Chicago** has received an anonymous gift of $300,000 to endow a distinguished service professorship in honor of Robert Maynard Hutchins, former chancellor. Robert Redfield, professor of anthropology at the university, has been named to fill the professorship.

• **Tulane University, California Institute of Technology,** and **Pomona College** have been named recipients of bequests from the estate of Mrs. Amelie McAlister Upshur, valued at more than $2,500,000.

• **The Alfred P. Sloan Foundation** has announced the establishment of 25 four-year scholarships valued up to $2000 annually for undergraduate students in technology and allied fields. The scholarships are being set up at California Institute of Technology, Carnegie Institute of Technology, Cornell University, and Massachusetts Institute of Technology.

• **Columbia University's** school of journalism has received gifts totaling $32,500 from two private sources to expand its facilities for television broadcasting and to establish an annual scholarship in television news writing.

• **The University of Pittsburgh** reports more than $4,900,000 pledged by 20 Pittsburgh industries toward the cost of erecting a new building for the schools of medicine and nursing at the university.

• **Alfred University** officials report that a $7500 gift will make possible the completion of a steel tower for the Davis memorial carillon at Alfred, N.Y. The donor was Mrs. Orra Rogers of Fort Pierce, Fla.

• **Wells College** trustees have launched a campaign for $1,300,000 for a college union building combined with a new gymnasium, swimming pool and bowling alleys. The college is at Aurora, N.Y.

• **University of Notre Dame** received $2,000,000 in gifts from alumni and friends and in grants from government and industry during 1952, according to the Rev. John J. Cavanaugh, C.S.C., director of the University of Notre Dame Foundation.

• **Lafayette College,** Easton, Pa., has launched a five-year program for $5,000,000 to meet long-range needs. The immediate objective is $1,100,000 for construction of three residence halls.

Provide the means for Feminine Discreetness

Women are discreet instinctively. The modern powder room is equipped with the SANIBAG method of quick, modest disposal of sanitary napkins. SANIBAG service is practically a must in motels, schools, hotels, restaurants and public buildings.

SANIBAG service not only pays off in good will, but with dollars saved in maintenance costs. Also a tremendous saving in plumber's bills arising from toilet stoppages. To provide SANIBAG service is simply good business judgment.

When writing for free samples and complete information, please include the name and address of your supply merchant.

Buy from Beier — Beier & Company, 409 SOUTH GREEN STREET, CHICAGO 7, ILLINOIS

NOT THIS... BUT THIS

Now . . . for a good shower

—deep freeze!

—scalding hot!

BANISH "BOOBY TRAP" SHOWERS

Use POWERS THERMOSTATIC Water Mixers

Real comfort and safety. No waste of time or hot and cold water.

POWERS THERMOSTATIC WATER MIXERS

—eliminate shower accidents

They are completely automatic, hold shower temperature wherever you want it regardless of **pressure** or **temperature** changes in water supply lines. Failure of cold water instantly shuts off the shower.

Tests prove Powers is safest shower regulator made for factories, schools, hospitals, hotels and clubs. Thousands now in use.

Used for Many Industrial Processes. Users report control within ½° F. Temperature Ranges: 65-115° F., 60-125° F., 75-175° F. Write for Bulletin 365. (b13)

THE POWERS REGULATOR CO.
Skokie, Ill. • Offices in Over 50 Cities • Est. 1891

Balmaseptic
TRUE DEODORANT LIQUID SOAP

CONTAINS HEXACHLOROPHENE (G-11

. . . the antiseptic agent used in modern surgical soaps. Reduces skin bacterial count as much as 95%.

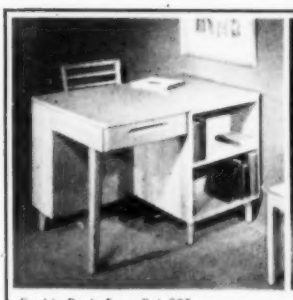
BALMASEPTIC's

time-saving and surgically cleansing properties provide "round the clock freshness" when used for wash-up or shower. But that's only part of the story, for BALMASEPTIC is made of premium quality soap ingredients, scented delightfully like the most expensive cake soaps . . . *and its price is well within your soap budget!*

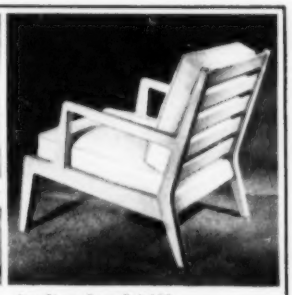
Let your Dolge Service Man demonstrate Balmaseptic's remarkable value. Dispensing equipment available.

FOR **FREE SANITARY SURVEY** of your premises consult your **DOLGE SERVICE MAN**

dependable **DOLGE**
WESTPORT, CONNECTICUT



Double Desk, Fawn Oak 830



Arm Chair, Fawn Oak 183

Furniture by HUNTINGTON
—always in good Taste

Huntington high quality furniture is specifically designed for long wear and style appeal for every institutional use — lounging areas, sleeping quarters and executive offices. Both the quality and comfort are guaranteed by strict adherence to high standards of manufacturing.
Sold through authorized contract dealers.
Designs by
Jorgen Hansen and Jens Thuesen.

COUPON

CAUB Please mail complete information about Huntington furniture to:
Company _____
City _____
Attach to your letterhead and mail to Huntington Chair Corporation, Huntington, W. Va.

HUNTINGTON CHAIR CORPORATION
HUNTINGTON, WEST VIRGINIA

Permanent Showrooms: Huntington, Chicago and New York

NEWS

NAMES IN THE NEWS

Earl J. McGrath

Earl J. McGrath, formerly United States commissioner of education, has been appointed to the presidency of the University of Kansas City, Kansas City, Mo. He will succeed **Dr. Clarence R. Decker,** who recently resigned. **Lee M. Thurston,** former superintendent of public instruction for Michigan, has been named federal commissioner of education. Dr. Thurston had recently been named dean of the college of education at Michigan State College.

John Selleck, business manager of the University of Nebraska, has been appointed acting chancellor of the university to succeed **R. G. Gustavson,** who is leaving in mid-July to become president of Resources for the Future, Inc.

Harry K. Newburn, president of the University of Oregon, has announced his resignation to become effective October 1. Dr. Newburn will become head of the Educational Television and Radio Center of the Ford Foundation at that time.

Ernest W. Weaver Jr.

Ernest W. Weaver Jr., assistant professor of mechanical engineering at the University of Toledo, has been named director of the university's junior college, according to an announcement by **Asa S. Knowles,** president. The appointment became effective July 1.

George A. Brakeley, vice president of Princeton University since 1941, retired July 1. He was succeeded by **Ricardo A. Mestres,** a member of the university staff since 1946 and assistant treasurer for the past year.

Dr. Horace A. Hildreth, president of Bucknell University, Lewisburg, Pa., resigned June 30 to accept appointment as ambassador to Pakistan. At the same time that the trustees announced the acceptance of Dr. Hildreth's resignation, they announced that two new posts had been created, that of vice president in charge of academic affairs and vice president in charge of administration. The first will go to **Dr. William H. Coleman,** dean of the college, the second to **Dayton L. Ranck,** university treasurer.

Evan A. Reiff, president of Sioux Falls College, Sioux Falls, S.D., has been named president of Hardin-Simmons University, Abilene, Tex. **Reuben P. Jeschke,** dean of the college, has been named acting president to succeed Dr. Reiff.

George B. Connell, vice president of Mercer University, Macon, Ga., will succeed **Spright Dowell** as president. The appointment becomes effective September 1.

George A. Christenberry, formerly dean of the men's college of Furman University, Greenville, S.C., has been named to the presidency of Shorter College, North Little Rock, Ark. The appointment became effective July 1.

John R. Richards, director of the office of research service of New York University, has been named vice chancellor of the Oregon System of Higher Education. The appointment becomes effective July 15.

"Aristocrat" best describes Michaels "Time-Tight" exhibit cases. They are in a class by themselves . . . the product of painstaking care throughout every manufacturing process. They are designed for beauty as well as utility, and incorporate many outstanding features such as Innerlocking frames, a Michaels exclusive; fully mitered intersections; and there are no screws exposed on the surface of the frames except where necessary for access panels. These and other structural details reduce to a minimum the possibility of theft, and the ingress of dust and vermin.

"Time-Tight" cases are made in a range of sizes and styles sufficiently wide to meet virtually all the exhibit requirements of universities, schools, science laboratories, museums, art galleries, libraries, industrial, and others.

Write for literature giving complete details and specifications.

THE MICHAELS ART BRONZE CO., INC.
240 SCOTT ST., COVINGTON, KENTUCKY

Manufacturers since 1870 of many products in Bronze, Aluminum and other metals

NEWS

Francis H. Horn

Dr. Francis H. Horn will resign as executive secretary of the Association for Higher Education of the National Education Association to become president of Pratt Institute, Brooklyn, N.Y., as of August 15. He will succeed **Charles Pratt,** grandson and namesake of the founder of the institute.

William E. Lambert, chief accountant of a manufacturing concern in Streator, Ill., has been named assistant chief accountant at the Armour Research Foundation of Illinois Institute of Technology, according to an announcement by **P. H. Lauer,** controller.

Stephen A. Maurer, former professor of economics, has been named to the newly-created post of business manager of Rider College, Trenton, N.J. He will assume charge of all college purchases, direct building maintenance, and supervise budgeting practices.

Dr. Eugene Antrim, president of Oklahoma City University from 1923 to 1934, died recently at 79 years of age.

DIRECTORY OF ASSOCIATIONS

National Federation of College and University Business Officer Associations

President: Irwin K. French, Wellesley College; vice president: Gerald D. Henderson, Vanderbilt University; secretary-treasurer: Nelson A. Wahlstrom, University of Washington.

Association of College Unions

President: Louis Day Jr., University of Pennsylvania; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

National Association of Educational Buyers

President: Forrest Abbott, Barnard College; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 5-7, Huntington Hotel, Pasadena, Calif.

Association of College and University Business Officers

American Association

President: J. B. Cephas, Virginia State College; secretary: L. H. Foster Jr., Tuskegee Institute.

Convention: May 2-4, Lincoln University, Jefferson City, Mo.

Central Association

President: Jacob Taylor, Ohio State University; secretary-treasurer: T. N. McClure, Knox College.

Eastern Association

President: F. Morris Cochran, Brown University; secretary-treasurer, Irwin K. French, Wellesley College.

Convention: Nov. 29-Dec. 1, Washington, D.C.

Southern Association

President: J. H. Dewberry, University System of Georgia; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: George W. Green, California Institute of Technology; secretary: Duncan McFadden, Stanford University.

American College Public Relations Association

President: Edward P. VonderHaar, Xavier University, Cincinnati.

Association of Physical Plant Administrators of Universities and Colleges

President: Sam Brewster, Alabama Polytechnic Institute; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

National Association of College Stores

President: R. C. Avery, Cornell Campus Store, Ithaca, N.Y.; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

College and University Personnel Association

President: Hedwin Anderson, University of Minnesota; secretary-treasurer: Clara Stimson, University of Rochester; executive secretary, Donald E. Dickason, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: July 19-22, Michigan State College, East Lansing.

National Association of College and University Housing Officers

President: Kenneth D. Lawson, Michigan State College; vice president: M. R. Shaw, Cornell University; secretary-treasurer: Ruth N. Donnelly, University of California, Berkeley.

Convention: August 3-5, University of Minnesota.

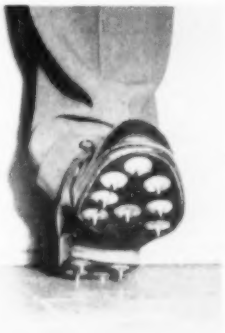
Need a Tough Floor Tile?

DO-ALL®

CORDED RUBBER FLOOR TILE

Stands up under spikes and cleats

A Do-All Floor Can Take It!



Especially tough, long wearing. Cushions every step. Subdues noise. Slip proof even with spikes. Four colors. Comes in 9" and 30" squares. 1/8", 3/16", 1/4" thicknesses. Ideal for locker rooms, grill rooms, entrances, lobbies, corridors, offices, cafeterias, kitchens.

Send coupon now for free literature and prices.

AMERICAN MAT CORPORATION

"America's Largest Matting Specialists"

1736 Adams St., Toledo 2, Ohio

( ) Please send literature and prices on Do-All Corded Rubber Floor Tile.

( ) Please have salesman call, without obligation.

Name

Name of School

Address

City & State

Name of Supplier

IN CANADA, AMERICAN MAT CORP., LTD., WINDSOR, ONTARIO

classified advertising

POSITIONS WANTED

Administrative Accountant C.P.A., seven years public accounting experience, including examinations of colleges and schools; two years in statistics; B.A. Degree in Economics, age 36. Write Box CW 166, COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant 26; married; B.A. Swarthmore college; M.A. University of Chicago; two years experience in private business; available October 1, for position in college or university business office. Write Box CW 170, COLLEGE AND UNIVERSITY BUSINESS.

Administrative Position At a college or large school desired by person with financial and legal background; modest salary requirements. Write Box CW 158, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager Available for college, university or preparatory school; college Degree Banking-Economics; diversified experience including 16 years banking investments; recently sold controlling interest profitable business; 48 years old, excellent health, attractive appearance; references. Write Box CW 168, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager or Comptroller—Single man, age 35, desires change of position; available July 1; four years' experience as comptroller of college and two years' experience as instructor in English and history; holds A.B. degree in history and B.S. degree in accounting; veteran of World War II. Write Box CW 150, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager or Treasurer Experienced chief business officer of small established New England college seeks position in southern California; M.B.A. Harvard; age 44. Write Box CW 169, COLLEGE AND UNIVERSITY BUSINESS.

College or School Business Executive Age 53; married; member of Lutheran church; thirty years experience in auditing, budgets, purchasing, personnel, finance, supervision and management. Write Box CW 167, COLLEGE AND UNIVEESITY BUSINESS.

College Union Director Experienced in both the management of food services and the development of student interest in the recreational and cultural activities of the college union; experienced in opening and organizing a new building; Degrees in Liberal Arts and Hotel Administration. Write Box CW 144, COLLEGE AND UNIVERSITY BUSINESS.

Controller or Business Manager At present employed; thirteen years experience private school and college accounting and management; twelve years other budget accounting, desires change to eastern liberal arts college; M.A., married, no children. Write Box CW 159, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director Position wanted in larger university; five years' experience as college food director, of an enrollment of eighteen hundred and boarders of two hundred and fifty; two years at a state institution, feeding three thousand; commissary steward four years; graduate of Cooks & Bakers School; two years with B.A.; age thirty five; dependable and honest; would like change; will consider anywhere; can furnish good recommendations. Write Box CW 102, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent or Assistant of Buildings and Grounds Five years' experience midwest university, plus eight years' supervision and practical background. Write Box CW 152, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds Supervising maintenance has been my business for the past 16 years; includes industry and a large educational institution involving all the crafts; am married, have a university degree in Engineering, and registered in Ohio; if your college is looking for a superintendent of buildings and grounds write Box CW 165, COLLEGE AND UNIVERSITY BUSINESS giving size of campus and buildings, enrollment, size of B. & G. Department, next year's budget, and salary bracket.

POSITIONS OPEN

Dining Hall Director, Male Private professional school of business administration in New England feeding 300 men and women; also cafeteria for day students; responsibilities include supervision of business, personnel, kitchen and dining room services, and food purchasing; full year employment; vacation of 6 weeks; reply giving full data, experience, education, salary, and personal qualifications. Write Box CO 124, COLLEGE AND UNIVERSITY BUSINESS.

Food Manager On the campus of the Pennsylvania State College; here's an excellent opportunity for a graduate dietitian; new buildings, new equipment, excellent working conditions, promotional opportunities. Write Box CO 123, COLLEGE AND UNIVERSITY BUSINESS.

Supervisor Kitchen and dining service in midwestern co-educational college; training and experience in food production and general supervision desired; year around position beginning September 1, 1953. Write Box CO 118, COLLEGE AND UNIVERSITY BUSINESS.

The rates for classified advertisements are: 20 cents a word; minimum charge, 8¢. (No charge for "key" number.)

Forms close 25th of month preceding date of issue.

Address replies to

COLLEGE AND UNIVERSITY BUSINESS
919 N. Michigan Avenue, Chicago 11, Ill.

WHAT'S NEW

July 1953

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 76. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Mark 313 Deep Fryer

Features which save time and materials in deep fat frying, and which improve the flavor of the foods, are incorporated in the Mark 313, the new deep-fat frying machine recently introduced. The new fryer received its name because it can turn out 313 two ounce servings of French fries in an hour, in only 28 pounds of cooking fat. It requires a preheating period of only five minutes and has virtually instantaneous temperature recovery.

Every joint of the fry baskets is welded to prevent the collection of food and fat, for ease of cleaning, and to prevent the possibility of fat remaining and becoming rancid. The removable fat compartment, which can be washed like an ordinary kitchen utensil, has valveless construction with completely unobstructed interior and rounded corners for easy cleaning. A duplicate fat compartment is stored in a roller-bearing drawer below the cooking section. At the end of the day, the tilt-type heating element is swung uprigth where it drains and can be easily cleaned. The drawer is pulled out, revealing the reserve fat container, and the "Miraclean" drain-and-strain apparatus siphons the fat into the clean container for storage. The used container is lifted out and washed with the fry baskets while the second container with the fat is placed in position, ready for use.

The new, more opwerful Calrod heating element ensures quick preheat and fast cooking. The coils circle the inside of the fry kettle section, heating the cooking fat from all sides at once and maintaining an even, uniform heat distribution without any waste of heat. The cooking heat is held to the proper heat by an accurate thermostatic control, preventing the fat from getting too hot. Signal lights indicating stages of operation and a safety switch are features of the unit. **Hotpoint Co., Dept. CUB, 227 S. Seeley Ave., Chicago 12. (Key No. 211)**

Corridor Lighting

A new Corridor Lighting Fixture with broad sidewise illumination has been developed for asymmetrical lighting requirements in wide halls and corridors. The brightness is well shielded lengthwise by means of 45 by 45 degree plastic Grate-Lite louvers. In a ten foot wide hall from 5 to 20 foot candles can be uniformly distributed across the entire hall with the new unit. The new V-C-U Corridor Light is available in 4, 8 and 16 foot lengths, wired Rapid-Start, Conventional or Slimline, in one or two rows

of lights. **The Edwin F. Guth Co., Dept. CUB, 2615 Washington Ave., St. Louis 3, Mo. (Key No. 212)**

Blanket Designs

New designs in blankets, to give them interest and fashion appeal, have been announced by North Star Woolen Mills. The new "Maypole Nocturne" blankets include ten bed coverings ranging from sable black through lemon yellow, cerulean blue and coronation rose to polaris white. The blankets have multi-colored acetate taffeta bindings which are color fast, resistant to fading and attractive in appearance.

The "Tweed King" and "Tweed Queen" blanket patterns are regular weight fine wool blankets in seven colors. The "Tweed King" has a loose but extremely durable weave while the "Tweed Queen" is a softer weave. All of the new designs would be suitable for use in dormitories and residence halls. **North Star Woolen Mills, Dept. CUB, 100 Park Ave., New York 17. (Key No. 213)**

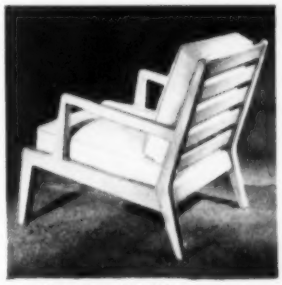
White Onex-Seal

Designed for sealing and finishing white Portland Cement, white marble and white terrazzo floors, the new White Onex-Seal recently introduced has a special formula developed by the manufacturer in his research laboratories. It has all the advantages of the original Onyx-Seal for the protection of hard surfaced floors with a new ingredient to increase the whiteness of the surfaces. The product penetrates and seals the surfaces without yellowing or discoloring them and gives a hard, permeating finish which becomes an integral part of the floor surface to prevent surface checking and efflorescence and to protect against penetration of moisture and stains. **Hillyard Chemical Co., Dept. CUB, St. Joseph, Mo. (Key No. 214)**

Oak Furniture Line

An attractive line of furniture for dormitories and other housing units, waiting rooms, lounges and other areas is offered in the 100 series. Manufactured with Appalachian Oak frames, the new Huntington House line includes all types of seating, dormitory beds, desks and book cases.

The design of Huntington House furniture considers comfort and durability. It is attractive in appearance, with clean modern lines. The beds, desks, chairs and book cases combine to form attractive living quarters. Chairs include side chairs, swivel chairs and arm chairs. Also in the line are settees for lounge and waiting room arrangements, with and without arms. They have foam rubber construction and at-



Arm Chair, Fawn Oak 183

tractive, durable upholstery. The line is designed for long wear in institutional use and is attractive in appearance. **Huntington Chair Corp., Dept. CUB, Huntington, W. Va. (Key No. 215)**

What's New . . .

Recov Chair

The attractive decorator cover of the Recov Chair can be easily and quickly removed for cleaning, replacement or change. When a chair cover becomes soiled or worn out, it is removed and a new cover put on in a matter of minutes. Covers can also be changed when rooms are redecorated or color schemes changed.

The Recov Chair has a sturdy steel frame with foam rubber padding and arms with either blond or walnut finish. The chair has been designed with the correct height and depth for maximum comfort, the foam rubber holds its shape and the sturdy No-Sag springs and heavy canvas prevents sagging. It is constructed so that the back cannot touch the wall to damage or mar it. The Recov is an ideal chair for dormitories and other housing units, or for lounge and waiting areas. **Simmons Company, Dept. CUB, Merchandise Mart, Chicago 54. (Key No. 216)**

Loudspeaker

A new idea in high-fidelity loudspeakers is offered in the new Ultrasonic Model U-24. Incorporating the Baruch-Lang System, the low priced speaker embodies the high fidelity characteristics of "big-speaker" types without high cost and large space requirements, according to the manufacturer. The unit is complete in a blond or mahogany cabinet, ready for immediate attachment. Its clear-cut sound dispersal qualities and projection tendencies make it well adapted for school and college public address systems. **Ultrasonic Corp., Dept. CUB, 61 Rogers St., Cambridge 42, Mass. (Key No. 217)**

Grinnell Spray Sprinklers

The new Grinnell Spray Sprinklers feature a new deflector which directs no water at the ceiling, making them effective in extinguishing fire and preventing its spread. They produce a high proportion of fine droplets and distribute them in a wide, evenly-filled pattern. The new sprinklers have proved especially effective against severe fires in fast-burning materials. Fast dissipation of heat is accomplished by rapid evaporation of the finer droplets in the new spray, preventing ceilings and other materials near the fire being raised to temperatures at which they would distill off flammable vapors or gases to feed the flames. The new sprinklers use less water in putting out fires, give superior ceiling protection and improved spray distribution and provide a wide margin of safety. **Grinnell Company, Inc., Dept. CUB, 260 W. Exchange St., Providence, R. I. (Key No. 218)**

Kent Floor Machines

Two new Kent Floor Machines have recently been introduced, the K-15 and the K-17. Both machines are ruggedly constructed for long, hard use and can be used for polishing, scrubbing, buffing and steel-wooling. They operate easily and quietly and have a minimum of moving parts. Handles are adjustable to any height and they have automatic safety switch which operates with either or both hands, and fully enclosed dust-proof, waterproof motor, with gears running in a continuous bath of grease.

Both machines feature the Kent "Floating Power" for smooth power, and

"Balanced Power" with motor off center to counterbalance handle and counteract torque. All weight is on the brush, facilitating cleaning, and the machine can be equipped with a solution tank for scrubbing large floor areas. **The Kent Company Inc., Dept. CUB, Rome, N.Y. (Key No. 219)**

Rotary Card File

A new electrically-operated rotary card file is now available with finger-tip, push-button control. It is said to enable a clerk to select electrically any one of thousands of cards in less than three seconds.

The automatic file is divided into 16 sections. Each section is controlled by one of 16 push-buttons mounted on a panel board. When the proper button is pushed, the file instantly revolves and automatically stops when the desired section is reached. The device revolves clockwise or counter-clockwise as required. **Mosler Safe Co., Dept. CUB, Hamilton, Ohio. (Key No. 220)**

Low Cost Electric Plant

A new type air-cooled, gasoline-powered electric generating plant has recently been introduced. It has a new, efficient vacuum cooling system which employs a powerful centrifugal blower to draw cold air through the generator and over the engine while discharging heated air out of a side vent. The "CW" model is available in 5000 and 10,000 watt capacities and incorporates many features usually reserved for heavy-duty diesel design. It offers low operating cost and lot initial cost per kilowatt of power, increased durability, high output, simple operation and maintenance and maximum safety. **D. W. Onan & Sons Inc., Dept. CUB, University Ave. S. E. at 5th, Minneapolis 14, Minn. (Key No. 221)**

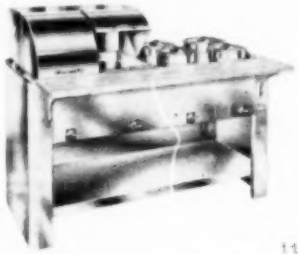
Poly-Krome Asphalt Tile

A new design in asphalt tile flooring, Poly-Krome is described as terrazzo in resilient type tile. Multi-colored chips are set deep into the surface of the tile and retain their brilliance for the life of the floor. Poly-Krome is available in a range of ten colors. **Hachmeister-Inc., Dept. CUB, Box 357, Pittsburgh 30, Pa. (Key No. 222)**

Waterless Food Warmer

The new Thermaduke Sanitary Waterless Food Warmer is available in a complete range of standard sizes. Models range from small buffet warmers to complete cafeteria counters, including portable food warmers for institutional use. Installations require no water or drain connections and there is no water pan to empty and clean. Selective heat control permits regulation of heat by section to give proper temperature for each type of food. Top plates are interchangeable and are available for any desired top arrangement.

The new models are ruggedly constructed of all-welded steel, available in stainless steel or baked gray enamel finishes. Corners are rounded and polished and the line is designed for easy clean



ing and maintenance, low operating costs and low heat loss. **Duke Manufacturing Co., Dept. CUB, 2305 N. Broadway, St. Louis 6, Mo. (Key No. 223)**

What's New . . .

Coated Concrete Block

Kem-Krete is a new type of coated concrete block, in either glazed or textured finish, with built-in color. It offers a colorful new construction material for interiors of all kinds. These standard masonry construction units are pre-coated to provide structural strength and finished surface in a single unit. The Kem-Krete finish becomes locked to the concrete block through a chemical action that transforms the finish into an integral part of the block in the manufacturing process. Thus a finished wall is provided in one operation. It is an improved, permanent type of surface for interior walls, eliminating the need for special facing materials and repeated refinishing.

The precoated blocks are available in 20 standard colors. The glazed finish presents a smooth, unbroken film over the entire surface of the block which is waterproof and impervious to washing compounds and cleaning matrials. The textured finish retains the acoustical properties of unfinished concrete. **The Sherwin-Williams Co., Dept. CUB, 101 Prospect Ave. N. W., Cleveland 1, Ohio. (Key No. 224)**

Waste Disposer

A new grinding principle has been incorporated into the Herlex Food Waste Disposer resulting in exceptional fineness of grind for ready flushing of waste down the drain, thus removing food waste in seconds, as it occurs. The Herlex is engineered for rigorous heavy-duty operation but is compact in size and easily installed. It is constructed of non-corrosive aluminum alloy, powered by a heavy-duty 5 h.p. motor for continuous feeding and quiet operation and has the inlet adapted for conveyor, funnel or other arrangement required. **Herlex Mfg. Co., Dept. CUB, 1442 W. Van Buren St., Chicago 7. (Key No. 225)**

Reversible-Portable Fan

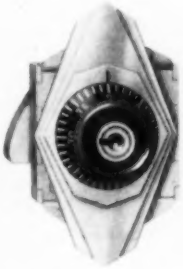
The new portable Welch Air-Flight fan can be used in windows 28 to 40 inches wide, on tables or on the floor. Protective grilles on front and back make

the fan safely portable and safe for use in any location. The reversible-portable fan delivers 2800 cubic feet of air per minute and is powered by a three speed, heavy duty motor requiring no oiling. The fan is only 6 inches deep and is finished in metallic Nassau blue. **The W. W. Welch Co., Dept. CUB, Glenn Bldg., Cincinnati 2, Ohio. (Key No. 226)**

Combination Locker Lock

Improvements incorporated in the construction of the 68-267 Combination Locker Lock have resulted in a sturdier and more satisfactory lock for use on lockers with spring latch bars. The latch drops and the lock automatically locks when the door is closed. It can be opened in emergency by a master key provided with quantity orders.

The working parts of the lock have been completely redesigned and strengthened to prevent the possibility of shifting or forcing of the parts. Stronger materials and new technics of construction ensure a lock that will hold and give long, trouble-free protection. It is available for both right and left hand doors and has three-number dialing. The plug and cylinder are bright chromium plated



while the escutcheon is satin chromium plated. **National Lock Co., Dept. CUB, Rockford, Ill. (Key No. 227)**

Floor Tile

Two new flooring materials introduced recently by Sloane-Blabon are Koroseal Tile Imperial and Cork Tile. Koroseal Tile Imperial is an all-vinyl tile with an unusually long wearing surface in its price range. It is a high quality flooring with grip-tight back and precision cut for quality floor tile installation in institutions. It has a new vinyl color formulation and is available in 12 colors in the 9 by 9 inch size.

Sloane Cork Tile is manufactured by a modern, low-temperature process which eliminates the charred wood odor. Features of the new tile include long wear, great resilience, fine color uniformity and high resistance to stain. This light, sound-absorbent material is suitable for use on floors and walls and is available in natural coloring in $\frac{1}{8}$ and $\frac{3}{8}$ inch gauges in three sizes. **Sloane-Blabon Corp., Dept. CUB, 295 Fifth Ave., New York 16. (Key No. 228)**

Coffee Urns

The new 1953 line of Tri-Saver Coffee Urns recently introduced has several new construction features. The filler cup is eliminated from the body of the urn. Only one liner tube is used instead of two, since the coffee gauge glass is now connected with the coffee faucet. The new liner tube is made of smooth stainless steel, simplifying the cleaning and protecting coffee flavor. The elimination of holes under faucets at the bottom of the urn body prevents exhaust gases from cooking the coffee in faucet and gauge. All coffee and water faucets have detachable heads which can be easily removed for cleaning. New type burners attached to the urn are supplied where thermostats are furnished for gas heat.

The Tri-Saver Coffee System brews consistently flavorful coffee without urn bags or filter paper. A permanent stainless steel filter with specially constructed bottom filters the brew edgewise by capillary action, ensuring clear, full-strength coffee. There are other structural improvements in the urns for more efficient and simplified operation and to ensure good coffee. The new line, is available in a complete range of sizes and models, equipped for gas, steam or electric heat. **S. Blickman, Inc., Dept. CUB, Weehawken, N. J. (Key No. 229)**

Elevator File

The new versatile Diebold Elevator File is designed to save time and effort in filing and in removing filed material. The file also saves space as up to 38 linear feet of records can be stored in six square feet of floor space with any record quickly delivered to desk-top height for easy accessibility. The file is designed to be placed beside the clerk's desk to eliminate the necessity for trips back and forth to other areas.

Records and guides are fully exposed for quick reference, at desk height. Trays are elevated to two positions, for reference standing or seated. The full face of the record is exposed when needed and no markers are necessary when material is removed. Trays from the file are easily lifted out for carrying to posting machines or desks of other workers. **Diebold Incorporated, Dept. CUB, Canton 2, Ohio. (Key No. 230)**

What's New . . .

Wide Louver Vertical Blinds

The problem of covering unusually wide-spanned windows can be solved with the new 5¼ inch wide louver Vertical Blinds. They operate in the same maner as standard 3 inch Vertical Blinds, with a hand-operated or motor-controlled rod which rotates from fully opened to closed.

Vertical Blinds combine the decorative qualities of draperies, curtains and blinds while controlling the flow of both light and air through rotation of the fabric louvers. They are available in Du Pont fabrics in a variety of colors. Maintenance and cleaning are reduced as the blinds collect a minimum of dust because of the vertical surfaces. **Vertical Blinds Corp. of America, Dept. CUB, 1936 Pontius Ave., West Los Angeles 25, Calif. (Key No. 231)**

Spirit-Type Duplicator

The new Rex-O-graph crest Model C Spirit-Type Duplicator is designed for fast and accurate copy making at low cost. The new machine is designed to handle all weights of paper from air mail tissue to card stock in sizes from post card to 9 by 14 inches. Anything typed, written or drawn can be copied in as many as five colors from one master. Features claimed for the Model C include hairline registration, automatic paper centering, positive automatic paper feed, three digit reset counter, quick change master guide and clamp. **Rex-O-graph, Inc., Dept. CUB, 7878 W. Hicks St., Milwaukee 14, Wis. (Key No. 232)**

Hanging Scale

The Model 2110 Hanging Scale offers simplicity of operation and easy portability. It is well suited to ingredient weighing or general storeroom use in schools and other institutions. Finished in gray enamel the new scale has large 13¼ inch dials on both front and back for easy reading of weight indications. An efficient air cylinder control brings the indicator to rest quickly. The scale is suspended from an overhead support with a swivel type hanger for easy turning to suit the convenience of the operator. A large-sized, porcelain enamel pan holds the items to be weighed. **Toledo Scale Co., Dept. CUB, 1023 Telegraph Rd., Toledo 12, Ohio. (Key No. 233)**

Folding Table and Bench Unit

A folding, easily mobile table and bench unit is offered in the Sico Table. It is ruggedly built of structural steel with laminated plastic table top and wood seat boards. Each unit will seat 20 children or 16 adults and is complete in itself.

The Sico unit can be stored in minimum space when folded. For use in gymnasiums, classrooms and other areas for special work, cafeteria and other uses, it is quickly wheeled on rubber tired casters to the place of need and opened. The unit is so designed that there are no exposed hinges to catch fingers, it cannot tip when folded for moving, and the seat support automatically locks the outer legs. The unit is so engineered that it can be easily opened by teachers

or pupils. There are no cracks or crevices to catch and hold food and the tables can be wiped clean with a damp cloth. **Seating Incorporated, Dept. CUB, 6045 Pillsbury Ave., Minneapolis 19, Minn. (Key No. 234)**

Floor Marker

The Florline Marking Machine now has a third retractable wheel which acts as a line guide 18 inches forward of the carriage. The three-wheeled suspension simplifies operation and the advance guide wheel keeps the machine in line before line marking begins. The arm on the guide wheel automatically folds back when coming to a curb or wall, permitting the machine to continue right up to the barrier. Curved lines are made by turning the machine in the desired direction and steering the guide wheel to the right or left. The handle of the machine can be raised and the brush lifted to roll the Florline to other areas without lifting the entire machine. The Florline is designed to make painted lines at walking speed and is built of heavy gauge metal. **H. C. Sweet Co., Dept. CUB, 24396 W. Seven Mile Rd., Detroit 19, Mich. (Key No. 235)**

Wireless Intercom

The Bogen model TWIN wireless communophone system is simple to install and can be used with two or more stations, all conversation being heard by all stations in the system. In most cases, a station can be located wherever there is a power outlet and readily moved from place to place as needed. The system employs the power lines already existing in a building as the transmitting medium and an exclusive line noise suppression circuit in every unit. Each station has transmitter and receiver.

The Bogen "Silent Watchman" permits a station to be locked in "transmit" position for use in various applications where a continuous listening arrangement or aural supervision is desired. The stations are placed in service by simply plugging into the outlet. Additional stations can be added to the system at any time. **David Bogen Co., Inc., Dept. CUB, 29 Ninth Ave., New York 14. (Key No. 236)**

Wood Folding Door

Savings in building space and in building costs can be effected with the new Pella Wood Folding Doors. The door is a series of wood panels 3⅜ inches wide and ⅜ inch thick which fold accordian-style against the door jamb. A "T" shaped wood piece fits between each panel and a series of concealed springs acting as hinges hold the door panels together. The door is supported and moves on a metal track at the top.

The Pella Wood Folding Door can be installed from ceiling to floor as a movable partition between classrooms and study halls, for closet and wardrobe doors in dormitories and to divide any large area. The doors are available up to 12 feet in height and up to 20 feet in width. They are fully assembled at the factory and come as a complete packaged unit, quick and easy to install. They

can be ordered with natural wood finish, unfinished, or with oak, birch or mahogany veneer. **The Rolscreen Co., Dept. CUB, Pella, Iowa. (Key No. 237)**

What's New . . .

Dusklite

Dusklite has been developed as a light control measure for ribbon windows and ventilator units used in conjunction with functional glass block installations. Composed of two layers of window glass laminated with an inner layer of neutral gray vinyl plastic, Dusklite is a safety glass which controls glare. Supplementary light control assistance from blinds, hoods, louvers or other shading devices is unnecessary with the new glass. It is designed for use with glass block installations for glazing elevations which are subject to exposure by direct sunlight.

The special control glass reduces brightness to comfortable seeing levels, much as sunglasses protect the wearer from glare. A degree of daytime privacy is also provided since it is easier to see through Dusklite to the outside than it is to see from the outside in when the outside illumination is greater than that of the interior. It causes no appreciable modification of colors indoors or out and since it is shatterproof, it should reduce damage from vandalism. The color free neutral gray glass permits adequate visibility of the exterior. **Pittsburgh Plate Glass Co., Dept. CUB, 632 Duquesne Way, Pittsburgh 22, Pa. (Key No. 238)**

Venetian Blind Laundry Unit

A simplified and inexpensive method for cleaning venetian blinds is offered in the new Jetspray Venetian Blind Laundry Unit. The unit can be operated by one individual without special skill and an average sized blind can be cleaned and rinsed in a matter of minutes. The laundry unit can be installed wherever there is a convenient floor drain with space to hang a blind for cleaning.

The Jetspray is designed to clean even the dirtiest blinds without hand rubbing. Tapes, cords and slats are all cleaned

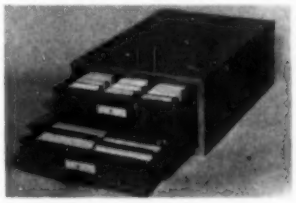
in one easy operation without taking the blind apart. **L. C. Robinson Mfg. Co., Dept. CUB, 522 N. Rural St., Indianapolis 1, Ind. (Key No. 239)**

Automatic Spray Sprinkler

Developed as the result of insurance research on sprinkler heads, the new Automatic Spray Sprinkler is available in two styles: upright, for exposed piping installations, and pendant, for installations involving concealed piping. The discharge waterway and operating mechanisms of the device are identical to previously approved sprinklers but modifications in the design of the frame and deflector have been made to afford substantially more efficient use of water for fire protection. The operation of the new Automatic Spray Sprinkler is said to be such that wider spacing of sprinklers is possible, thus reducing the number of heads required. **Automatic Sprinkler Corp. of America, Dept. CUB, Youngstown, Ohio. (Key No. 240)**

Slide File

A two drawer steel filing system for group filing of large quantities of 2 by 2 inch and stereo slides is now available. Both drawers of the cabinet can be used for stereos or 2 by 2 inch slides, or one may be used for each type. Approxi-



mately 675 2 by 2 inch readymounts or 300 glass slides can be filed in one drawer. If fitted for stereos, one drawer will hold 450 glass-mounted or 255 metal plastic or glass stereo slides. Additional files of the same size or larger models with four and six drawers can be lockstacked with the new model, thus permitting easy additions to the filing library. The new file is 10¼ inches wide, 16½ inches deep and 5¾ inches high, finished in silver gray hammerloid. **Jack C. Coffey Co., Dept. CUB, 1124 Greenleaf Ave., Wilmette, Ill. (Key No. 241)**

Plant Food

Fertileze is the name of a new 14 element water-soluble plant food which has recently been announced. In addition to a 20-10-20 content of the three major elements, Fertileze contains the 11 trace minerals essential for complete plant nutrition. It is packaged in dry powder form and is applied to lawn or garden in solution by means of three special feeding units. **Nutritional Concentrates, Inc., Dept. CUB, 3090 W. Liberty Ave., Pittsburgh 16, Pa. (Key No. 242)**

Verifax Office Printer

Copies of any letter-size papers can be made quickly on the new Kodak Verifax Printer. Three or more copies, costing less than five cents each, can be made from a single matrix sheet in approximately one minute. The copies are the same size as the originals and are black on white duplicates ready for immediate use. Copies have good legibility, are long lasting and can be produced in any office under ordinary illumination.

Typed, written, drawn or printed originals up to 8½ by 11 inches in size can be reproduced, including pages from books and magazines. The Verifax Printer is designed especially for office use. It is about the size of a typewriter and is made of two-tone, high-strength plastic with an attractive finish. **Eastman Kodak Co., Dept. CUB, Rochester 4, N.Y. (Key No. 243)**

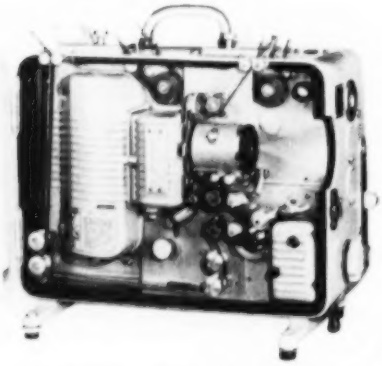
Automatic Door Control

A newly designed, electrically operated hydraulic door control has been introduced. Known as the "Invisible Dor-Man" the unit opens any type of door automatically through a control mechanism concealed in the floor. Concealed under a carpet leading through the doorway, the mechanism opens the door as soon as one steps on the carpet. The door remains open until the person has walked through, then closes with a two-speed action. The initial closing speed is greatly reduced during the last few inches of closing to assure noiseless operation. Speeds can be adjusted at time of installation.

The unit is easily installed and maintained and is economical in price. The hydraulic power unit can be hidden from view at any distance from the door. The electric cord is simply plugged into any standard circuit. Safety features prevent a door from opening when anyone is standing on the opposite side of the doorway. In case of power failure the door can be operated manually without locking or jamming. **Dor-O-Matic Division of Republic Industries, Inc., Dept. CUB, 4446 N. Knox Ave., Chicago 30. (Key No. 244)**

What's New . . .

JAN Projector



Developed initially for the Army and Navy through the collaboration of DeVry technicians and Armed Forces engineers, the DeVry JAN 16 mm. sound motion picture projector is now being made available for educational and other civilian uses. Acquiring its name from joint Army-Navy approval, the JAN provides brilliant clear pictures with remarkable natural sound. It has a 2000 foot film capacity with a film speed of 24 frames per second for sound film and 16 frames per second for silent films. It has a standard prefocused 750 watt lamp, interchangeable with 1000 watt lamp and lamps of lower wattage.

The quick, easy one-hand control permits elevation of the projector to the desired projection height where it will remain stationary. Precise film alignment is provided by the leveling screw on the rear projection leg. Film wear is kept at a minimum with the cool aperture, sapphire insets and undercut sprockets and rollers. The normal direction of the film can be reversed quickly without damage to the film. The projector is housed in a sturdy, shockproof and weatherproof carrying case finished in light gray enamel. **DeVry Corporation, Dept. CUB, 1111 W. Armitage Ave., Chicago 14. (Key No. 245)**

Plastic Draperies

Luxout plastic curtains for stages, windows and other darkening and dividing purposes are now available in attractive new designs as well as in plain colors. Made of Koroseal, Luxout curtains are fabricated by the Thermoseal Process for smoothness and consistent durability and are constructed to allow an even, non-balking action along the traversing track. These plastic vinyl curtains provide light control wherever needed.

The new material has an attractive dull finish. A number of new patterns are available, making the curtains especially effective for use as draperies in dormitories, residence halls and other areas where draperies are used. **Plastic Products, Dept. CUB, Richmond, Va. (Key No. 246)**

Antiseptic Soap

Designed for school use to reduce the spread of bacteria and skin infections, Vestal SDC is an antiseptic soap in liquid or powdered form. It has value in decreasing incidence and severity of pyrogenic skin infections and reduces infections in small cuts or lesions, according to the manufacturer. Transmission of athlete's foot and other communicable diseases is reduced when the soap is used in shower rooms. In liquid form it can be diluted and used in regular soap dispensers. The antiseptic content is hexachlorophene which has been proved to be highly effective as an antiseptic in combination with soap. **Vestal, Incorporated, Dept. CUB, 4963 Manchester Ave., St. Louis 10, Mo. (Key No. 247)**

Sound System

The new Masco 40-station sound system has a public address amplifier, AM-FM tuner, record changer and intercommunication equipment. Complete in one "package," the system has facility for two-way communication with any desired number, or all stations served.

Models are available for 10, 20, 30 and 40 stations and on special order, they are available for 50 or 60 stations.

The new system can distribute simultaneously to all or to any selected group of remote stations any recording or transcription, or any AM or FM radio program that is tuned in. Simultaneous paging and verbal alarm warning are instantaneously provided by a master switch and built-in intercommunication speaker. The unit has a power output of 28 watts and will deliver 40 watts at peak power. **Mark Simpson Mfg. Co., Dept. CUB, 32-28 Forty-ninth St., Long Island City 3, N.Y. (Key No. 248)**

Furniture Cushions

Combining sound-deadening with floor protection and easy moving of furniture, Gardettes are easily attached to chair and table legs. They are sturdily constructed of Wynene plastic and steel for long life and satisfactory performance. Gardettes have a flat base, thus helping to prevent dents in floors or coverings. They are available in ¾ and 1 inch sizes. **The National Plastic Products Co., Dept. CUB, Odenton, Md. (Key No. 249)**

Florentine Doilies

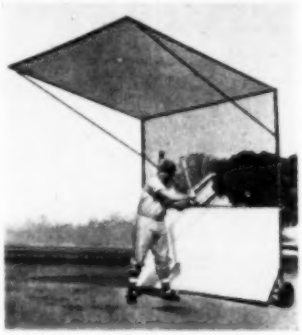
A new series of paper doilies, using Florentine lace as the design, is now available. They match the Milapaco place mats of the same design and are available in 5, 6, 8, 10 and 12 inch sizes. In addition to their attractive appearance, the new Florentine doilies are crisp, easy to separate and clean to handle. When used with the matching place mats they make an attractive table setting. **Milwaukee Lace Paper Co., Dept. CUB, 1306 E. Meinecke Ave., Milwaukee 12, Wis. (Key No. 250)**

Universal Baseboard

The completely redesigned line of Kritzer Baseboard Heating equipment includes models to meet every requirement for institutional or industrial heating, either steam or hot water. A feature of the line is the full height, solid steel back plate which aligns the entire baseboard assembly, firmly supports all elements, and acts as a barrier against loss of heated air into walls while protecting wall surfaces from dust streaks. The new Kritzer slide cradle fits snugly to the fins and prevents movement of the coil unless necessary for realignment. The enclosure is easily assembled or removed for cleaning. **Kritzer Radiant Coils, Inc., Dept. CUB, 2901 Lawrence Ave., Chicago 25. (Key No. 251)**

Batting Cage

Developed to provide additional baseball facilities and to increase versatility of crowded playing areas, the new CB989 Batting Cage is a portable unit. It is easily moved and maneuvered on large rubber tired wheels with an adjustable guide wheel which permits the rear end to rest firmly on the ground for stability when in use. It is of heavy steel tubing construction, bolted and welded for additional strength. A white canvas apron reenforces the netting and provides a solid background for players in the field.



The canopy top can be easily folded for compact storage and transportation. **Wells, Dept. CUB, P.O. Box 192, Dept. R., North Hollywood, Calif. (Key No. 252)**

What's New . . .

Opaque Glass Dinnerware

The gleaming white surface of the new Corning brand double-tough opaque glass dinnerware does not grow dull. There is no surface glaze to wear away and sticky foods wash off the smooth, hard surface easily. Cup handles are an integral part of the cup, minimizing the possibility of breaking off in use. The surface does not crack or craze from high temperatures and the dishes can be sterilized. The dinnerware is durable, relatively low in cost, and is designed especially for institutional use to withstand rough handling and hard usage. The dinnerware is decorated with a double green border around the edge. The line includes 7 ounce cup and saucer, 9 inch dinner plate, 6¾ inch bread and butter plate, 15 ounce bowl and 5 ounce saucedish. **Corning Glass Works, Dept. CUB, Corning, N.Y. (Key No. 253)**

Custom-Pak Frozen Fish

A new institutional package of frozen fish known as Blue Water Brand is now available, featuring fillets graded to size and uniformity. The new Custom-Pak packages contain ten pounds of fillets of selected uniform sizes for institutional servings. The first institutional packages contain perch fillets packed in four size gradings, ranging from four to the pound to ten to the pound. The specialized packaging will cover other varieties of fish. **Fishery Products Inc., Dept. CUB, 705 Union Commerce Bldg., Cleveland 14, Ohio. (Key No. 254)**

Decorative Floor Coating

Colorflex Plus AWA is a decorative and protective floor coating designed for use in laundries, engine rooms, washrooms, offices, kitchens and other areas requiring special protective coating on floors. It is not affecetd by fruit, vegetable or lactic acid and cannot be softened by water, mineral oils or grease, according to the manufacturer. Its penetrating synthetic resin base makes it effective for painting concrete and it seals and colors wood, brick, composition and other surfaces. The product is available in red, gray, brown, green and clear. **Flexrock Co., Dept. CUB, 3644 Filbert St., Philadelphia 1, Pa. (Key No. 255)**

Vinylite Anatomical Models

The texture of living tissues is now possible in anatomical models made of Vinylite resin-base plastisols. This practically indestructible anatomical sculpture is modeled after authentic dissections and molded in three dimensions. Students can see, touch and remove organs, tissue and other parts of the body from flexible, easy-to-clean anatomical models. The models are resistive to oxidative decay and to chipping, abrasion and scuffing. They resist attack by most chemicals and are easily washed and cleaned with a damp cloth.

Different plastisols based on Vinylite resins are used for the various organs to make them feel like real living tissue. Basic colors are pigmented in the plastisol and hand painted artwork applied by artists. The paints are also based on Vinylite resins to establish a permanent bond with the plastisol base. Zoological and botanical models are also available in the new material. The models are economically produced at competitive

prices. **A. J. Nystrom & Co., Dept. CUB, 3333 Elston Ave., Chicago 18. (Key No. 256)**

Color Projection Screen

Designed specifically for improved color projection, the new Radiant Colormaster is made of Color-Flect fabric, a unique silver-treated material. Greater detail, contrast and realism for color films, slides and filmstrips are claimed with the new screen. The fabric is stretched perfectly tight and flat by the the exclusive Tensi-Lock device which operates on the ratchet principle, and the Tensi-Bar aluminum rod which suspends the fabric from two points. The portable tripod screen can be set up quickly and easily and slight foot pressure on the Tip-Toe Lock snaps the legs open automatically. The Colormaster is available in sizes from 30 by 40 inches to 70 by 70 inches. **Radiant Mfg. Corp., Dept. CUB, 2627 W. Roosevelt Rd., Chicago 8. (Key No. 257)**

Product Literature

• Points on **"Planning and Equipping the Homemaking Classroom"** are discussed in a new folder on "Education for Living" published by St. Charles Manufacturing Co., St. Charles, Ill. Line drawings show suggested floor layouts for an efficient homemaking department and photographs of actual installations in schools and colleges illustrate the attractive, practical departments which can be set up with St. Charles equipment. The informative text is treated editorially and offers helpful data on the homemaking department, the unit kitchen, the demonstration unit, and clothing classroom and laundry. Information is also given on what custom building means in a classroom, the value of steel for classroom use, and on the large selection of special purpose St. Charles units and accessories. **(Key No. 258)**

• Two booklets of interest to the maintenance department, service department, engineer and student, are offerd by Simpson Electric Co., 5200 W. Kinzie St., Chicago 44. **"1001 Uses For the Model 260"** gives information on the Simpson Model 260 volt-ohm-milliammeter which will read electrical quantities of voltage, current and resistance. The 50 page booklet is profusely illustrated and offers detailed data on technical features of the Simpson Model 260. The second booklet, **"How to Use the Simpson Models 479 and 480 for UHF Alignment,"** is a 38 page technical booklet for engineers and engineering students. **(Key No. 259)**

• **The Loxit Floor-Laying System** is discussed in **Catalog F.L. 1953** available from Loxit Systems, Inc., 1217 W. Washington Blvd., Chicago 7. The principle of the Loxit system, typical specifications, how the system operates and instructions for its use are covered fully in the text with cut-away drawings illustrating the points discussed. **(Key No. 260)**

• A new booklet has been released by American Cyanamid Co., Plastics Dept., 30 Rockefeller Plaza, New York 20. It describes actual case histories where **Melmac Plastic Dinnerware** has been used, both commercially and in institutions, and discusses the advantages and economies of this break-resistant, light weight dinnerware which is available in many styles and colors. **(Key No. 261)**

• A bulletin has been issued by the Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh 8, Pa., describing the results of tests with use of oxygen inhalation by athletes after exertion. How the Vitalator portable, self-contained oxygen unit is used and the advantages to athletes are discussed in **Bulletin No. 1105-2. (Key No. 262)**

PRODUCT INFORMATION

Index to "What's New"

Pages 69-76

Key

211 Mark 313 Deep Fryer
Hotpoint Company

212 Corridor Lighting Fixture
The Edwin F. Guth Co.

213 Blanket Patterns
North Star Woolen Mills

214 White Onex-Seal
Hillyard Chemical Co.

215 Oak Furniture Line
Huntington Chair Corporation

216 Recov Chair
Simmons Company

217 Loudspeaker
Ultrasonic Corp.

218 Spray Sprinklers
Grinnell Co., Inc.

219 Floor Machines
The Kent Co., Inc.

220 Rotary Card File
Mosler Safe Co.

221 Low Cost Electric Plant
D. W. Onan & Sons Inc.

222 Poly-Krome Asphalt Tile
Hachmeister-Inc.

223 Waterless Food Warmer
Duke Manufacturing Co.

224 Coated Concrete Block
The Sherwin-Williams Co.

225 Food Waste Disposer
Herlex Manufacturing Co.

226 Air-Flight Fan
W. W. Welch Co.

227 Combination Locker Lock
National Lock Co.

228 Floor Tile
Sloane-Blabon Corporation

229 Tri-Saver Coffee Urns
S. Blickman Inc.

230 Diebold Elevator File
Diebold Incorporated

231 Wide Vertical Blinds
Vertical Blinds Corp. of America

232 Spirit-Type Duplicator
Rex-O-Graph Inc.

233 Hanging Scale
Toledo Scale Co.

Key

234 Folding Table and Bench Unit
Seating Incorporated

235 Florline Marking Machine
H. C. Sweet Co.

236 Wireless Communophone System
David Bogen Co. Inc.

237 Wood Folding Doors
Rolscreen Company

238 Dusklite
Pittsburgh Plate Glass Co.

239 Venetian Blind Laundry
L. C. Robinson Mfg. Co.

240 Automatic Spray Sprinkler
Automatic Sprinkler Corp. of America

241 Slide File
Jack C. Coffey Company

242 Plant Food
Nutritional Concentrates, Inc.

243 Kodak Verifax Printer
Eastman Kodak Co.

244 "Invisible Dor-Man"
Dor-O-Matic Division, Republic Industries Inc.

245 JAN Projector
DeVry Corporation

246 Luxout Plastic Draperies
Plastic Products Co.

247 Antiseptic Soap
Vestal Incorporated

248 Sound System
Mark Simpson Mfg. Co.

249 Gardettes for Furniture
The National Plastic Products Co.

250 Florentine Paper Doilies
Milwaukee Lace Paper Co.

251 Universal Baseboard
Kritzer Radiant Coils Inc.

252 Batting Cage
Wells

253 Opaque Glass Dinnerware
Corning Glass Works

254 Custom-Pak Frozen Fish
Fishery Products Inc.

255 Colorflex Floor Coating
Flexrock Co.

Key

256 Vinylite Anatomical Models
A. J. Nystrom & Co.

257 Color Projection Screen
Radiant Manufacturing Corp

258 "Planning Homemaking Class
St. Charles Manufacturing C

259 Simpson Use Booklets
Simpson Electric Co.

260 Floor-Laying System
Loxit Systems Inc.

261 Plastic Dinnerware
American Cyanamid Co.

262 Bulletin No. 1105-2
Mine Safety Appliances Co.

263 Maintenance Supplies Check
Huntington Laboratories Inc

264 Lamson Catalog
Lamson Corporation

265 Otis Catalog
Otis Elevator Co.

266 Selection Manual No. 45-195
Anemostat Corporation of A

267 Bulletin 5B
Central Scientific Co.

268 Catalog Sheet
Penfield Manufacturing Co.

269 Koch Catalog
Koch Refrigerators

270 Fan Catalog 3FN-0301
Westinghouse Electric Appliance Div.

271 Bulletin, "Pioneer Tracks"
Bell & Howell Company

272 Library Planning
John E. Sjöström Company

273 Product Application Manual
C. A. Dunham Co.

274 Bulletin WC-110
Graver Water Conditioning

275 "Controlling Thermal Environ
Minneapolis-Honeywell Regulator Co.

276 C-5 Condensed Catalog
Lawler Automatic Controls

ON

nical Models
n & Co.

n Screen
ufacturing Corp.

nemaking Classroom"
Manufacturing Co.

ooklets
tric Co.

ystem
Inc.

are
anamid Co.

105-2
Appliances Co.

upplies Check List
aboratories Inc.

g
oration

Co.

ual No. 45-1953
Corporation of America

ntific Co.

nufacturing Co., Inc.

rators

FN-0301
se Electric
Div.

eer Tracks"
ll Company

ng
tröm Company

cation Manual
m Co.

10
ler Conditioning Co.

Thermal Environment"
-Honeywell
r Co.

d Catalog
matic Controls Inc.

INDEX CONTINUED ON FOLLOWING PAGE →

USE THESE CARDS

(We pay the postage)

These cards are detachable and are provided for the convenience of our subscribers, and those to whom they pass their copies, in obtaining information on products and services advertised in this issue or described in the "What's New" Section.

FIRST CLASS
CHICAGO, ILL.
PERMIT NO. 136
SEC. 34.9 P. L. & R.

BUSINESS REPLY CARD
No Postage Stamp Necessary if mailed in the United States

3 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS
919 NORTH MICHIGAN AVENUE
CHICAGO 11, ILLINOIS

FIRST CLASS
CHICAGO, ILL.
PERMIT NO. 136
SEC. 34.9 P. L. & R.

BUSINESS REPLY CARD
No Postage Stamp Necessary if mailed in the United States

3 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS
919 NORTH MICHIGAN AVENUE
CHICAGO 11, ILLINOIS

USE THESE CARDS

(We pay the postage)

These cards are detachable and are provided for the convenience of our subscribers, and those to whom they pass their copies, in obtaining information on products and services advertised in this issue or described in the "What's New" Section.

July, 1953

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

WHAT'S NEW							
211	212	213	214	215	216	217	218
219	220	221	222	223	224	225	226
227	228	229	230	231	232	233	234
235	236	237	238	239	240	241	242
243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258
259	260	261	262	263	264	265	266
267	268	269	270	271	272	273	274
275	276						

ADVERTISEMENTS			
277	278	279	280
281	282	283	284
285	286	287	288
289	290	291	292
293	294	295	296
297	298	299	300
301	302	303	304
305	306	307	308
309	310	311	312
313			

NAME _____ TITLE _____

INSTITUTION _____

ADDRESS _____ CITY _____ ZONE _____ STATE _____

July, 1953

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

WHAT'S NEW							
211	212	213	214	215	216	217	218
219	220	221	222	223	224	225	226
227	228	229	230	231	232	233	234
235	236	237	238	239	240	241	242
243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258
259	260	261	262	263	264	265	266
267	268	269	270	271	272	273	274
275	276						

ADVERTISEMENTS			
277	278	279	280
281	282	283	284
285	286	287	288
289	290	291	292
293	294	295	296
297	298	299	300
301	302	303	304
305	306	307	308
309	310	311	312
313			

NAME _____ TITLE _____

INSTITUTION _____

ADDRESS _____ CITY _____ ZONE _____ STATE _____

Key

277 Adams & West
Aluminum W

278 American Cha
School Furni

279 American Mat
Rubber Floo

280 Arlington Seat
School Seat

281 Bausch & Lomb
Eyepiece Co

282 Beier & Compa
Sanitary Na

283 Blickman, Inc.,
Food Servic

284 Breuer Electric
Floor Maint

285 Brewer-Titcher
Trucks for

286 Burroughs Ad
Accounting

287 Celotex Corpo
Acoustical

288 Crane Compa
Plumbing Eq

Index to Products Advertised

Page

Adams & Westlake Company
Aluminum Windows 9

American Chair Company
School Furniture 10

American Mat Corporation
Rubber Floor Tile 67

Arlington Seating Company
School Seating 56

Bausch & Lomb Optical Company
Eyepiece Camera 57

Beier & Company
Sanitary Napkin Disposal..... 65

Blickman, Inc., S.
Food Service Equipment 2

Breuer Electric Mfg. Company
Floor Maintenance 55

Brewer-Titchener Corp.
Trucks for Folding Tables 10

Burroughs Adding Machine Company
Accounting Machine .....4th Cover

Celotex Corporation
Acoustical Material 15

Crane Company
Plumbing Equipment 7

Key — Page

289 Dolge Company, C. B.
Liquid Soap 65

290 Dolge Company, C. B.
Floor Maintenance 10

291 Eastman Kodak Company
Photocopy Machine 61

292 Frigidaire Division
Refrigerator 8

293 General Fireproofing Company
Metal Chairs 53

294 Guth Company, Edwin F.
School Lighting 64

295 Herrick Refrigerator Company
Refrigerators 12

296 Hotpoint Company
Fry Kettle 51

297 Huntington Chair Company
Institutional Furniture 65

298 Huntington Laboratories, Inc.
Floor Maintenance 58

299 Johns-Manville
Acoustical Ceilings .....3rd Cover

300 Libbey Glass Company
Glassware 63

Key — Page

301 Ludman Corporation
Awning Windows 16

302 Maple Flooring Mfrs. Assn.
Maple Flooring .....2nd Cover

303 Michaels Art Bronze Company, Inc.
Display Cases 66

304 National Biscuit Company
Institutional Food 13

305 National School Furniture Company
Laminated Table Tops 60

306 Osborn Engineering Company
Engineering Consultants 62

307 Powers Regulator Company
Thermostatic Water Mixers..... 65

308 Powers Regulator Company
Temperature Control 5

309 Roddis Plywood Corporation
Plastic Re-surfacing Material 11

310 Sexton & Company, John
Institutional Food 49

311 Simpson Electric Company
Electrical Instruments 12

312 Sloan Valve Company
Flush Valves 1

313 Strong Electric Corporation
Projectors & Spotlights 59

What's New . . .

• The new **Maintenance Supplies Check List** issued by Huntington Laboratories Inc., Huntington, Ind., has been prepared as a convenience for those responsible for these products in schools and other institutions. Spaces are provided for entering quantities on hand as well as quantities needed to keep stocks at normal levels. **(Key No. 263)**

• **"Faster Food and Dish Handling with Lamson Trayveyors"** is the title of a new catalog issued by Lamson Corporation, Syracuse 1, N. Y. The two color, 24 page booklet, Bulletin 749, was developed to illustrate the advantages to be derived from the installation of the Trayveyor for institutional food handling. **(Key No. 264)**

•**"Vertical Transportation by Otis"** is the title of the 1953 general catalog issued by Otis Elevator Co., 260 Eleventh Ave., New York 1. The complete line of Otis equipment and services is described, including sections on escalators and passenger elevators, dumbwaiters, elevator modernization, freight elevators and maintenance programs. **(Key No. 265)**

• Comprehensive technical data for simplifying choice of proper air diffusers in air conditioning systems are given in the new 64 page **Selection Manual No. 45-1953** issued by Anemostat Corporation of America, 10 E. 39th St., New York 16. This third revised edition contains a complete new section on Duct Take-off Design and is illustrated with photographs, tables on performance data and case examples. It shows how proper locations and correct number of required units are determined. **(Key No. 266)**

• Information on various types of **Constant Temperature Equipment** is given in **Bulletin 5B** issued by Central Scientific Co., 1700 Irving Park Rd., Chicago 13. The 48 page booklet contains data on ovens, incubators, water heaters and thermoregulators, including construction and operation. **(Key No. 267)**

• **Penfield Fully Automatic Mono-Column Demineralizers** are described in a new catalog sheet released by Penfield Mfg. Co., Inc., 19 High School Ave., Meriden, Conn. Detailed description of parts, sample specifications and performance data supplement the photographic and schematic diagram of the product. **(Key No. 268)**

• Designed to meet the need for safe large-space food storage by institutions, **Koch Reach-In Refrigerators** are offered in sizes from 25 to 70 cubic feet and are described and illustrated in the new edition of the catalog issued by Koch Refrigerators, North Kansas City, Mo. Detailed information, specifications and prices are included. **(Key No. 269)**

• The complete line of Westinghouse fans for 1953 is illustrated and described in the new **Fan Catalog 3FN-0301** issued by Westinghouse Electric Appliance Division, 653 Page Blvd., Springfield 2, Mass. **(Key No. 270)**

• A new publication for magnetic sound movie makers is being published by Bell & Howell Co., 7100 McCormick Rd., Chicago 45. Entitled **"Pioneer Tracks,"** the new bulletin will be edited and published by Bell and Howell to serve as a medium for the exchange of ideas and experiences in magnetic sound recording. The first issue appeared in April. **(Key No. 271)**

• A visual conception of a completed library is now available to administrators and architects in the planning stages. **The New Life Library Planning Service "Three-Dimensional Planning"** is designated to give new life to the presentation of library layouts. A complete set of accurate, half-inch scale models of shelving, tables, charging desk and other items is set in position on a planning table scaled to form with actual dimensions. When all the elements of the planned library are in their proper positions, the miniature library is photographed and the result is attached to the layout so that the new library can be visualized. The new service is available from John E. Sjöström Company, Library Planning Service, 1727 N. Tenth St., Philadelphia 22, Pa. **(Key No. 272)**

• **The Dunham Product Application Manual** is a **"Handbook of Heating"** designed to give complete information on heating systems and how to select and apply heating equipment. Available from C. A. Dunham Co., 400 W. Madison St., Chicago 6, the 400 page board-bound manual is a veritable encyclopaedia of heating information. Subjects covered include wet heating systems, radiation, unit heaters, pumps, control equipment, engineered radiation, blower unit heaters, special purpose pumps and related products and specialties. There is also a section on engineering data and one on terminology. The book is fully indexed and is illustrated by charts, graphs, line drawings and photographs. Listed at $5, copies of the book can be obtained until the end of August at the introductory price of $2.50 each. **(Key No. 273)**

• A compact unit for smaller steam generating plants is described in **Bulletin WC-110** released by Graver Water Conditioning Co., 216 W. 14th St., New York 11. This new development is a compact "package type" heater, completely equipped with all accessories, for smaller boiler plants. It is of the effective spray-tray type with a vent condenser of the internal type for maximum compactness. **(Key No. 274)**

• Comprehensive studies on the importance of controlling the physical forces in the learning environment have been made by Darell Boyd Harmon and are reported in a monograph **"Controlling the Thermal Environment of the Co-ordinated Classroom."** Copies of the 46 page booklet are available from Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. So., Minneapolis 8, Minn., who published the monograph as an educational service. Subjects covered include criteria for thermal control of the classroom environment, the nature of the human organism, body temperature and its regulation, thermal differences between children and adults, body temperature and activity and body temperature and problem-solving rapport. The final chapter is devoted to "Some Conclusions." **(Key No. 275)**

• The Lawler Line of Thermostatic Control Valves is described and illustrated in **C-5 Condensed Catalog** released by Lawler Automatic Controls, Inc., 453 N. MacQuesten Pkwy., Mount Vernon N.Y. **(Key No. 276)**

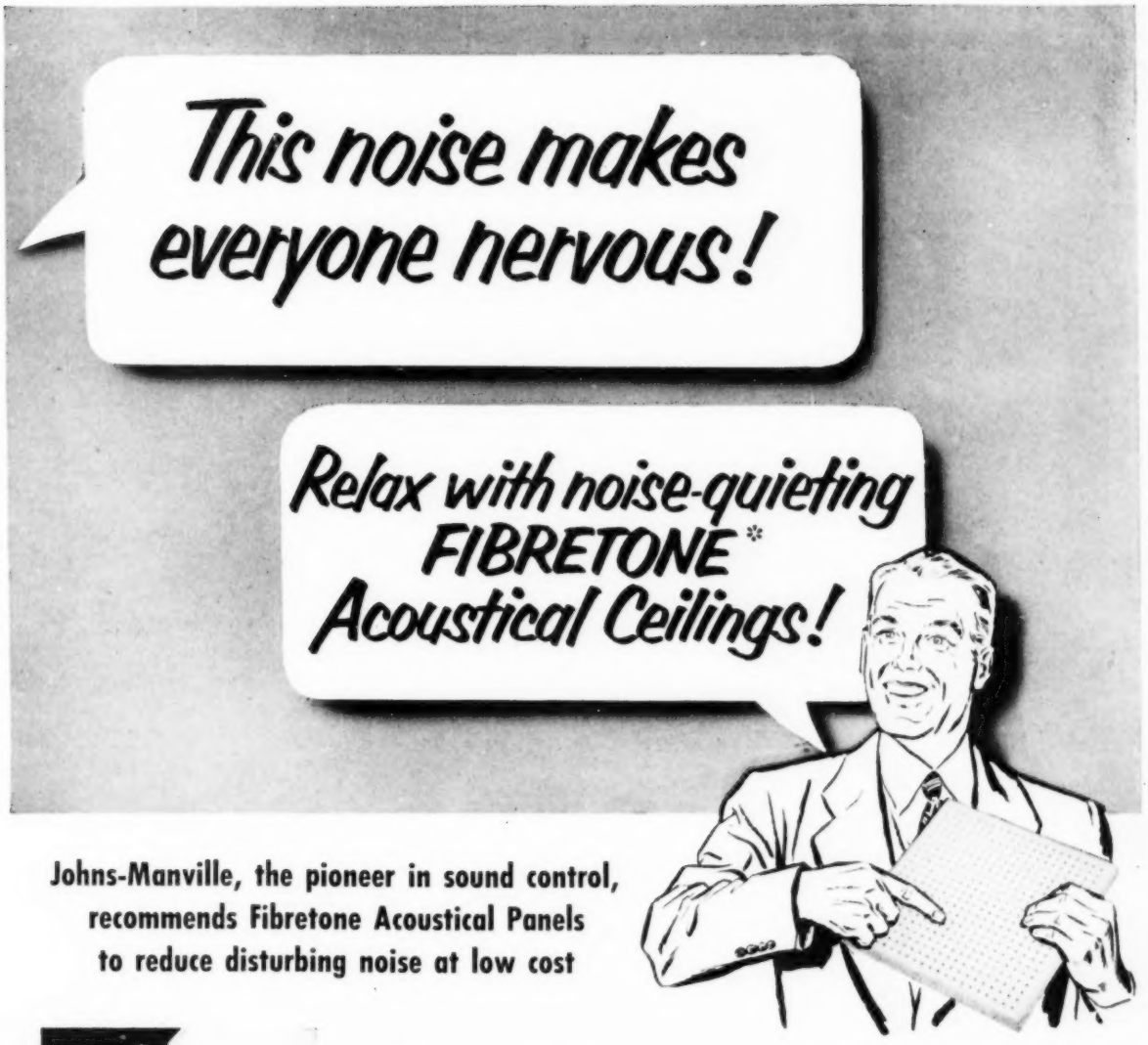
Suppliers' News

The Corbin Wood Products Division of The American Hardware Corporation, New Britain, Conn., specializing in the fabrication of sorting tables, sorting racks, lock boxes, cabinets and other items of mail handling equipment, has moved to a new plant at **Hornell, N.Y.**

The Clarke Sanding Machine Co., Muskegon, Mich., manufacturer and distributor of floor maintenance equipment and supplies, announces the appointment of **G. H. Wood & Company Ltd., Toronto, Canada,** as exclusive distributors in Canada for **Clarke's heavy duty Wet-Dry Vacuum Cleaners, Models WD-23 and WD-15.**

Pittsburgh Corning Corp., manufacturer of glass blocks and Foamglas, announces removal of its offices from **307 Fourth Ave.,** to **One Gateway Center, Pittsburgh 22, Pa.**

John Sexton & Company, 500 N. Orleans St., Chicago 90, manufacturer and distributor of food products for the institutional field, announces the purchase of **The Columbia Conserve Company of Indianapolis,** a food processing concern with 72 years of experience. The purchase includes all the plant facilities previously operated by Columbia and which have been almost entirely rebuilt and equipped with modern machinery and equipment in recent years. Additional improvements will be made in the Columbia property by Mr. Sexton and a new Sexton branch sales office and distributing warehouse will be opened on the property to handle service to Sexton customers in Indiana and Kentucky.



Johns-Manville, the pioneer in sound control, recommends Fibretone Acoustical Panels to reduce disturbing noise at low cost

Fibretone Panels are easily installed over new or existing construction.

BECAUSE DISTRACTING NOISE can lead to confusion and careless mistakes in schoolwork, practically all new schools include acoustical ceilings for noise absorption. However, even if your school was constructed before sound control became an established science, you can have Johns-Manville Fibretone Acoustical Panels easily and quickly installed over your present ceilings with little interruption to regular routine.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient yet modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act as "noise-traps" where sound energy is dissipated. Fibretone is pre-decorated, can be painted and repainted, and is available with a flame-resistant finish.

Other J-M Acoustical Ceilings include *Permacoustic**, a textured noncombustible tile with great architectural appeal; *Transite**, perforated acoustical panels; and *Sanacoustic**, perforated metal panels backed with a noncombustible, sound-absorbing element.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. CU, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.

*Reg. U.S. Pat. Off.

JOHNS MANVILLE JM PRODUCTS

Johns-Manville

40 years of leadership in the manufacture of acoustical materials

One BURROUGHS ACCOUNTING MACHINE *will do both* BUDGETARY AND PAYROLL ACCOUNTING

This useful and versatile Burroughs accounting machine can be kept busy every day, doing the work of two, even three, separate machines.

This Burroughs by-passes old-fashioned accounting methods to furnish all administrators with accurate *current* reports of activities under their control.

Payroll accounting is reduced to two operations: 1) time and earnings are computed; 2) complete checks and *all* payroll records are prepared together . . . four records at one writing!

This Burroughs is a complete accounting machine . . . it can do almost any job in your office. And it is a machine on which any operator—even an inexperienced one—can keep books faster, more simply, more economically.

Let your Burroughs man show you the new portfolio, *Streamlined Governmental Accounting and Management Reports*, which gives the full story of the Burroughs governmental accounting machines versatility and usefulness to you. Call your local Burroughs branch office or write direct to Burroughs Corporation, Detroit 32, Michigan.

WHEREVER THERE'S BUSINESS THERE'S **Burroughs**